12/15/86 U6730-2A

GEORGIA BUSINESS AND ECONOMIC CONDITIONS

November-December 1986
Volume 46, number 6

The Role of Metropolitan Areas In Employment Change 1980 to 1986

James O. Wheeler

Of all employment in Georgia in 1986, nearly 72 percent is found in the state's seven metropolitan areas and only 28 percent in the nonmetropolitan counties. Almost 50 percent of Georgia's jobs are in the Atlanta metropolitan area alone, up from 44 percent in 1980.

Has nonmetropolitan employment grown faster than metropolitan employment in the past few years? Quite the contrary. Although 28 percent of Georgia's jobs in 1986 are in the nonmetropolitan areas, the figure was over 33 percent as recently as 1980 (Table 1). In fact, in every employment category the percentage of nonmetropolitan jobs to total jobs has decreased between 1980 and 1986. This decrease is most evident in manufacturing, the backbone of the rural and small town economy. In 1980 over 50 percent of all manufacturing jobs in the state were in nonmetropolitan areas; in 1986 this percentage had dropped to just over 38 percent. Likewise, construction employment in nonmetropolitan areas dropped from over 36 percent in 1980 to under 29 percent of all construction employment in 1986. All of these percentage changes demonstrate that nonmetropolitan areas are relatively worse off in 1986 than they were in 1980.

Total metropolitan employment increased from 1980 to 1986. Of the 469,100 new jobs created in Georgia during this period, however, only 4.7 percent, or 21,900 jobs were added in the nonmetro areas of the state, an increase of less than 1 percent per year (Table 2). By contrast, over 75 percent of the job growth occurred in the Atlanta metro area, leaving slightly less than 20 percent of the growth in Georgia's other six metropolitan areas. Atlanta has added an average of almost 60,000 jobs per year during the 1980s.

From 1980 to 1986 employment growth in Georgia was almost 22 percent, making it one of the fastest growing states in the country. As Table 3 highlights, employment growth in nonmetro areas was just over 3 percent, detailing again the marked contrast between metropolitan and nonmetropolitan growth. Employment in Atlanta grew at the remarkable rate of 38 percent during the 1980s. Among the other metro areas, the percentage growth ranged from a high of 35 percent in Augusta to a low of only 6 percent in Albany. The increase was only 8 percent in Columbus. The principal reason for the slower rate of growth in Albany and Columbus is the loss of manufacturing jobs in these cities, over 12 percent in Albany and nearly 8 percent in Columbus.

TABLE 1

Percentage of Total Employment by Job Category, 1980 and 1986 (in 000s)

	Atlanta	All Metropolitan Areas	Nonmetropolitan Areas
	1980		
Total	43.9	66.5	33.5
Construction	39.7	63.7	36.3
Manufacturing	27.0	49.5	50.5
Transportation, Utilities	62.2	80.4	19.6
Wholesale, Retail	51.8	71.6	28.4
Finance, Insurance, Real Estate	58.6	80.3	19.7
Service	57.0	78.4	21.5
Government	37.2	66.1	33.9
	1986		
Total	49.6	71.7	28.3
Construction	50.7	71.2	28.8
Manufacturing	33.2	61.4	38.6
Transportation, Utilities	64.6	81.0	19.0
Wholesale, Retail	56.0	75.3	24.7
Finance, Insurance, Real Estate	65.4	84.7	15.3
Service	60.0	80.5	19.5
Government	40.6	69.6	30.4

Source: Compiled by author from *Employment and Earnings*, U.S. Department of Labor, vols. 27 and 36, June 1980 and 1986.

While most large metropolitan areas in the Northeast suffered absolute losses in the number of manufacturing jobs during the 1980s, the Atlanta area enjoyed a net gain of about 45,000 jobs in manufacturing. Except for Macon, the other metro areas in the state were stagnant or had job losses. The biggest losses, however, occurred in Georgia's nonmetro counties, which had a net loss of 8,000 workers. Thus, the 35,800 additional manufacturing jobs in the state over the six years were the result of Atlanta's phenomenal growth in the face of a general decline in factory employment.

The largest employment sector in Georgia is wholesaling and retailing, with most of the jobs in the latter category. Nearly 70 percent of all jobs created in this sector in Georgia during the 1980s were in Atlanta, with only 13 percent in nonmetropolitan areas.

Similarly, employment in services grew by over 132,000 jobs during these six years. Atlanta accounted for over two-thirds of the growth, the six other metropolitan areas had 18 percent, and the nonmetro areas absorbed only 14 percent of the growth.

In Atlanta particularly, employment in finance, insurance, and real estate (FIRE) has outpaced manufacturing as a traditional jobs base. Between 1980 and 1986, over 32,000 jobs in FIRE were created in the state, and Atlanta's share totaled 88 percent.

In summary, growth rates in every major employment

GEORGIA BUSINESS AND ECONOMIC CONDITIONS

November-December 1986
Volume 46, number 6

DIVISION OF RESEARCH

Albert W. Niemi, Jr.
Dean of the College
Director of Research

Phillip A. Cartwright
Director, Economic Forecasting

Lorena M. Akioka
Editor

Suzanne A. Lindsay
Research Coordinator

GEORGIA BUSINESS AND ECONOMIC CONDITIONS (ISSN 0297-3857) is published bimonthly by the Division of Research, College of Business Administration, The University of Georgia, as a service to the business and academic communities. Signed articles reflect the author's opinion but not necessarily those of the Division of Research, College of Business, or The University of Georgia. This publication is sent free of charge upon request.

Manuscripts and letters to the Editor should be sent directly to us. **Postmaster** send address changes to: Division of Research, College of Business Administration, The University of Georgia, Athens, GA 30602

Second class postage paid at Athens, Georgia

TABLE 2

Absolute Change in Employment by Job Category, 1980 to 1986 (in 000s)

Area	Total	Construction	Manufacturing	Transportation, Utilities
Georgia	469.1	52.3	35.8	25.3
Albany	2.8	-0.8	-1.4	0.4
Athens*	6.9	0.8	-1.0	0.2
Atlanta	354.1	35.2	44.5	19.7
Augusta	43.0	3.2	0.1	0.5
Columbus	6.7	1.5	-1.7	-0.3
Macon	20.0	1.2	3.9	0.0
Savannah	13.7	1.4	-0.8	0.8
Nonmetropolitan	21.9	9.8	-8.0	4.0

Area	Wholesale, Retail	Finance, Insurance, Real Estate	Services	Government
Georgia	158.1	32.1	132.3	32.8
Albany	2.4	0.2	1.1	1.7
Athens*	2.3	0.2	1.8	1.7
Atlanta	109.9	28.3	89.6	25.5
Augusta	9.0	0.9	9.6	1.2
Columbus	3.3	0.8	2.7	-0.1
Macon	5.1	1.2	3.9	4.4
Savannah	5.6	0.3	4.8	1.2
Nonmetropolitan	20.5	0.2	19.0	-2.8

* Data refer to 1981 average by month since Athens was not included in 1980.

Source: Compiled by author from *Employment and Earnings*, U.S. Department of labor, vols. 27 and 36, June 1980 and 1986.

TABLE 3

Percentage Change in Employment by Job Category, 1980 to 1986

Area	Total	Construction	Manufacturing	Transportation, Utilities
Georgia	21.9	54.1	6.8	18.3
Albany	6.1	-.3	-12.3	19.0
Athens*	13.0	44.4	-0.7	13.3
Atlanta	37.7	91.7	31.4	22.9
Augusta	35.4	50.8	.3	11.4
Columbus	8.1	41.7	-7.8	-8.6
Macon	20.8	30.0	23.9	0.0
Savannah	16.3	32.6	-3.7	8.9
Nonmetropolitan	3.1	27.9	-3.0	14.8

Area	Wholesale, Retail	Finance, Insurance, Real Estate	Services	Government
Georgia	31.6	29.7	39.3	7.7
Albany	23.8	8.7	16.9	16.8
Athens*	22.3	11.8	24.2	10.4
Atlanta	43.4	44.6	46.6	16.1
Augusta	39.6	19.8	60.4	3.9
Columbus	19.8	15.4	23.7	-0.5
Macon	25.4	21.4	25.5	28.2
Savannah	28.9	7.3	31.4	7.7
Nonmetropolitan	14.4	0.1	26.2	-0.2

* Data refer to 1981 average by month since Athens was not included in 1980.

Source: Compiled by author from *Employment and Earnings*, U.S. Department of labor, vols. 27 and 36, June 1980 and 1986.

group were significantly slower in nonmetro areas of the state. Most of the new jobs created outside the MSAs are in retailing and services, jobs categories that serve the existing population rather than generate new growth. In contrast, the metropolitan economies are more diverse. Atlanta's evolution into a major corporate center will continue to attract employment in producer services such as finance, law, planning and management that will create jobs in other sectors of the economy. The other metropolitan areas will fall somewhere between. In Augusta, rapid growth in service employment, especially medical services, is a key to continued growth. In Albany, many of the same problems that plague nonmetropolitan areas are encountered, and growth will be slower.

James O. Wheeler is The Merle Prunty, Jr., Professor of Geography at the University of Georgia.

In Defense of Two Georgias

Eugene P. Odum

Metropolitan Atlanta differs from rural Georgia, and so it should. High energy, urban-industrial metropolitan districts always have a higher per capita income than rural areas. For Georgia, this fact is well documented by Albert Niemi and Charles Floyd in their articles in previous issues of *Georgia Business and Economic Conditions*. Perhaps the difference is more pronounced than in some other states, but the comparison should not be restricted to income.

In terms of overall quality of life, the rural environment has many redeeming values. Most importantly, it provides the life support for the city. If business and industry had to pay for all this, that is, if there were no rural watersheds, airsheds and agro-ecosystems to provide vital services, Atlanta or any other city would not prosper. Atlanta's economic future depends as much on the Chattahoochee valley remaining rural and ecologically healthy as it does on interstates and Hartsfield Airport. In other words, we need two distinct but overlapping basic environments, one to produce the material wealth and manmade goods and services and the other to provide the life support goods and services. Viewed from this perspective, both Georgias seem to be in good shape. Unfortunately, the balance increasingly is threatened by overly narrow economic views and policies that fail to consider environmental quality.

RURAL VS. URBAN

The valuable services of the rural areas fail to show up in conventional economic cost accounting or in per capita income statistics because they primarily are nonmarket or "common property" goods and services. Since energy and money are closely related, we can use energy conversion as a common denominator for market and nonmarket values to demonstrate the interdependence of the fuel-powered city and the solar-powered countryside as well as to estimate the value of the environment in monetary terms.

With the exception of income, rural Georgia has much to offer. The country is a great place to raise children; there is less crime, less air and water pollution on the whole, less stress, more scenic beauty, and more room to breathe. As Niemi points out, economic conditions in most of rural Georgia actually are not that bad if one considers the lower costs of living and recognizes that the current farm income situation is a market problem and not a result of any basic shortcoming of the rural environment. As he documents, the rate of growth of per capita income has been greater in the country than in the city recently, so the economic gap between the two Georgias has narrowed a bit. What Niemi does not point out is that there are as many, if not more, low income persons in the city as in rural Georgia. Higher *average* incomes in the city hide this fact.

Migration from the country to the city has been occurring for the past fifty years. In general, this trend has improved the quality of agriculture and the rural environment; row-cropping on steep lands has been discontinued and the land returned or restored to grass and trees.

Since 1935 the area in cropland in Georgia has decreased by almost half, but yields per acre have tripled, so total crop production has increased as numbers of farms and farmers have decreased. Land in forest has increased accordingly, especially in the piedmont. At the same time, many urbanites are moving back to the country or seeking second homes there. In general, these trends have been gradual and beneficial to the state as a whole. Sometimes, though, drought or market failure has forced rapid changes, resulting in hard times for those caught in the transition. Perhaps the role of goverment in such times is to help those caught in the crunch but not to try to reverse transitions that are desirable in the long run.

SUGGESTED SOLUTIONS

What rural Georgia needs most is better schools. If schools in rural counties could be brought up to the standards of suburban schools, then the gap in quality-of-life indices based on income and education statistics would narrow. Many rural counties also need low tech development to improve income yet maintain the unique qualities of rural life. Assembly plants, and commerce

and industry related to agriculture, forestry, and recreation seem appropriate. Still, care must be exercised here. Think how disasterous it would be if an urban sprawl covered the entire state, and quiet places ceased to exist. Forcing development where it doesn't belong will not only increase the public debt and raise taxes but ruin the countryside as well.

One way to reduce the odds of such a disaster is to set aside large areas of parks, national and state forests, wildlife refuges, green belts, and permanently undeveloped farmland. Parklands are especially needed in the piedmont where most Georgians live and where there are now very few preserved natural or seminatural areas. A statewide effort to preserve Georgia's river corridors and freshwater wetlands is especially desirable. Now is a good time to do this since much of the land is in a "reserve status," that is, land suitable for a number of purposes although no definite decisions have been made on how to use it. We are pleased to note that the Department of Natural Resources and other state agencies are aware of this great opportunity and have accelerated planning for natural area preservation.

Basically, I suggest that growth management planning for the state include goals and constraints for rural and urban development that are different, but complementary. This must be done in order to maintain and improve the balance between market and nonmarket values that ultimately determine overall quality of life.

Eugene P. Odum is Callaway Professor Emeritus and Director Emeritus of the Institute of Ecology at the University of Georgia.

Georgia's Green Power: The Future of Forest Product Industries

Part 2

Suzanne A. Lindsay

Part 1 of this article outlined the impact of Georgia's major forest product industries on the state's economy in the early 1980s. This part examines the outlook for those industries: forestry and the manufacturing of lumber and wood products, paper and allied products, and selected wood-using furniture and fixtures. Although the fortunes of specific industries are likely to vary, depending on market conditions and general economic trends in the state and nation, projections released in 1985 by the U.S. Department of Commerce, Bureau of Economic Analysis, anticipate that employment and earnings from forest products manufacturing will increase faster in Georgia than in the U.S. as a whole.

If the projections are realized, Georgia's major forest product manufacturing industries would provide 91,700 jobs in the year 2000, making up 2.6 percent of projected nonfarm employment and 14.2 percent of all manufacturing employment (Table 1), slightly less than the equivalent 1983 percentage for nonfarm employment, but higher than the 1983 percentage for manufacturing employment as a whole. The overall projection is likely to be somewhat high, in that wood-using furniture and fixtures manufacturing industries contribute only about half of the total employment for furniture and fixtures in general. To offset the overestimate, the totals for forest product manufacturing do not include estimates for forestry and forestry services, which provided an estimated 2,250 jobs for Georgians in 1984.

Annual average rates of growth based on the employment projections through 2000 indicate that jobs in Georgia's forest product manufacturing industries are expected to grow at faster rates than those in the same U.S. industries (Table 2). Jobs in lumber and wood products manufacturing are projected to grow up to 25 percent more rapidly than comparable U.S. employment, and to contribute most of the employment growth for forest product industries as a whole. By 2000, the industry would add almost 14,000 jobs over 1983 levels, with the total representing 7.3 percent of projected manufacturing employment and 1.4 percent of projected nonfarm employment. Jobs would grow at an annual average rate of nearly 3.5 percent over 1983-1990, decreasing to a rate of 2.6 percent over 1983-1995 and 2.1 percent over 1983-2000.

The furniture and fixtures industry as a whole is expected to contribute 2,400 more jobs in Georgia in 2000 than in 1983, although only part of these will come from wood-using portions of the industry. Annual average rates of growth based on the projected employment levels are a little more than half of those for lumber and wood product manufacturing: 1.8 percent over 1983-1990, falling to 1.2 percent over 1983-2000. Jobs in paper and allied products manufacturing are projected to increase by about 3,000 by 2000, but to have the slowest annual average rate of growth over the longer period, falling from 1.1 percent for 1983-1990 to 0.6 percent for 1983-2000. In both industries, projected jobs would decline as a percentage of manufacturing and nonfarm employment.

GROWTH IN REAL EARNINGS

The BEA projects increasing real earnings for each major forest products industry, with a total contribution of $1.1 billion (1972 dollars) in 2000, compared to $692.8 million in 1983. Such earnings would represent 3.1 percent of projected nonfarm earnings, down from 3.3 percent in 1983, and 13.8 percent of projected manufacturing earnings (compared to 14.6 percent in

Table 1

Characteristics of Actual 1983 and Projected Employment in Forest Product Industries, Georgia, 1990-2000

Measure/Industry	Actual 1983	Projected 1990	1995	2000
Employment (thousands of jobs)				
Nonfarm	2,635.7	3,086.3	3,293.2	3,489.2
Manufacturing	520.2	602.5	627.6	646.1
Paper and allied products	28.0	30.3	30.7	31.0
Lumber and wood products	33.3	42.3	45.5	47.2
Furniture and fixtures[a]	11.1	12.6	13.1	13.5
Industry employment as % of:				
Nonfarm employment:	100.00	100.00	100.00	100.00
Paper and allied products	1.06	0.98	0.93	0.89
Lumber and wood products	1.26	1.37	1.38	1.35
Furniture and fixtures[a]	0.42	0.41	0.40	0.39
Manufacturing employment:	100.00	100.00	100.00	100.00
Paper and allied products	5.38	5.03	4.89	4.80
Lumber and wood products	6.40	7.02	7.25	7.31
Furniture and fixtures[a]	2.13	2.09	2.09	2.09

Annual average rate of growth (%) for:	1983-1990	1983-1995	1983-2000
Nonfarm employment	2.28	1.87	1.66
Manufacturing employment	2.12	1.58	1.28
Paper and allied products	1.13	0.77	0.60
Lumber and wood products	3.48	2.64	2.07
Furniture and fixtures[a]	1.83	1.39	1.16

[a] Includes all types of furniture/fixtures; separate data for wood-using industries not available.

Source: Based on U.S. Department of Commerce, Bureau of Economic Analysis, *1985 OBERS BEA Regional Projections*, Vol. 1, State Productions to 2035, p. 25. Percentages and annual average rates of growth computed by Division of Research.

Table 2

Projected Annual Average Rates of Growth in Employment and Real Earnings, U.S. Forest Product Industries, for Selected Future Periods

Measure/Industry	Period and Annual Average Rate of Growth (%) 1983-1990	1983-1995	1983-2000
Employment			
Paper and allied products	0.76	0.51	0.40
Lumber and wood products	2.84	2.09	1.61
Furniture and fixtures[a]	1.63	1.12	0.90
Real Earnings (1972 $)			
Paper and allied products	2.76	2.32	2.11
Lumber and wood products	4.57	3.54	2.93
Furniture and fixtures[a]	3.26	2.53	2.20

[a] Includes all types of furniture/fixtures.

Source: Based on U.S. Department of Commerce, Bureau of Economic Analysis, *1985 OBERS BEA Regional Projections*, Vol. 1, State Projections to 2035, pp. 2-3. Annual average rates of growth computed by Division of Research.

1983). Thus, although the industries' absolute contribution to real earnings is expected to increase, their relative contribution is expected to decline slightly. Annual average rates of growth calculated from projected earnings for Georgia's forest product industries exceed those for comparable U.S. industries for each period considered, although real earnings for two of the three major industries are expected to grow at annual average rates below those for Georgia's nonfarm earnings and manufacturing earnings as a whole (Table 3).

Real earnings from lumber and wood products manufacturing are expected to grow from $246.1 million in 1983 to $452.8 million in 2000, with annual average rates of growth of 5.5 percent for 1983-1990, 4.4 percent for 1983-1995, and 3.7 percent for 1983-2000, above the expected rates for nonfarm and manufacturing real earnings. Paper and allied products manufacturing, which contributed real earnings of $374.1 million in 1983, is projected to add $548.1 million in 2000; earnings would increase less rapidly than those for lumber and wood products, at annual average rates of 3.1 percent for 1983-1990, declining to 2.3 percent for 1983-2000. Real earnings from furniture and fixture manufacturing are projected to grow somewhat faster, from $72.6 million in 1983 to $110.3 million in 2000, at annual average rates of 3.5 percent for 1983-1990 and 2.49 percent for 1983-2000. By 2000, real earnings for both paper and allied products and furniture and fixtures manufacturing would decrease slightly as a percentage of nonfarm and manufacturing real earnings.

PROJECTIONS OF SUPPLY

Although projections of employment and real earnings offer a largely positive view of the future for Georgia's major forest product industries, projections of the timber supply that will be available to sustain those industries past the late 1980s anticipate a continuing imbalance between annual cuts and annual growth through 2010, unless existing trends change. Since all of the trees that will reach harvestable size (at roughly 20 to 40 years of age, depending on their use for lumber or pulpwood) by the end of the century have already been planted, foresters can estimate the timber supplies that will be available if current trends in growth, harvest, and replanting continue. Projections based on the U.S. Forest Service's 1972 inventory of forest resources in Georgia were relatively optimistic, envisioning a total annual timber cut of 1733 million cubic feet by the year 2001. The inventory completed in 1982, however, revealed substantial declines

Table 3

Actual 1983 and Projected Real Earnings in Forest Project Industries, Georgia, 1990-2000

Measure/Industry	Actual 1983	Projected 1990	1995	2000
Real earnings (millions of 1972 $)[a]				
Nonfarm	20,961.5	27,892.1	31,628.1	35,471.9
Manufacturing	4,748.7	6,433.3	7,272.3	8,065.0
Paper and allied products	374.1	462.3	504.6	548.1
Lumber and wood products	246.1	358.7	410.9	452.8
Furniture and fixtures[b]	72.6	92.3	101.5	110.3
Industry earnings as % of:				
Nonfarm earnings:	100.00	100.00	100.00	100.00
Paper and allied products	1.78	1.66	1.60	1.55
Lumber and wood products	1.17	1.29	1.30	1.28
Furniture and fixtures[b]	0.35	0.33	0.32	0.31
Manufacturing earnings:	100.00	100.00	100.00	100.00
Paper and allied products	7.88	7.19	6.94	6.80
Lumber and wood products	5.18	5.58	5.65	5.61
Furniture and fixtures[b]	1.53	1.43	1.40	1.37
Annual average rate of growth (%) for:		1983-1990	1983-1995	1983-2000
Nonfarm earnings		4.17	3.49	3.14
Manufacturing earnings		4.43	3.62	3.16
Paper and allied products		3.07	2.53	2.27
Lumber and wood products		5.53	4.36	3.65
Furniture and fixtures		3.49	2.83	2.49

[a] By place of work.

[b] Includes all types of furniture/fixtures; separate data for wood-using industries not available.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *1985 OBERS BEA Regional Projections*, Vol. 1, State Projections to 2035, p. 25. Percentages and annual average rates of growth computed by Division of Research.

in both forest acreage in general and softwood forests in particular, especially in stands of young softwood trees expected to provide the bulk of merchantable timber early in the next century.

As a result, initial estimates based on the 1982 inventory projected only a 1600 million cubic foot cut by 2002, increasing to 1673 mcf by 2012. Softwoods were expected to provide very little of that increase; by 2012, the softwood timber cut was projected to be only 2 percent above its 1981 level. Timber supplies from industrially controlled lands (which generally are intensively managed but make up only 25 percent of the state's forests) were expected to increase through the end of this century. Those from non-industrial private forests (which contained 68 percent of Georgia's timberlands in 1982), were expected to continue their decline.

By mid-1986, preliminary revised estimates of softwood harvests projected an annual cut of only 1038 million cubic feet in 2000, well below the 1982 estimates. If annual growth begins to exceed removals by 2020, as projected, the softwood timber supply would then reverse a long decline. John Gunter, of the Cooperative Extension Service, University of Georgia, explains the decline simply: many timber owners in Georgia have been cutting trees, especially softwoods, much faster than they have planted them. Farmers, in particular, have treated timber as a "cash crop"; burdened by debt, poor harvests, and declining prices for other crops, many have accelerated their timber harvests.

In 1984, Gunter estimates, Georgia's farmers removed 147 percent of the annual timber growth on their forest lands; removals from national forest lands were also greater than annual growth (135 percent), but affected relatively little timberland. Harvesting by other public owners, the forest industry, and private corporate and individual owners other than farmers ran below annual growth totals. As a result, the total softwood harvest in 1984 by all owners averaged 102 percent of annual growth, a proportion expected to rise to 110 percent in 2000 before dropping to 94 percent in 2020. As long as annual harvests exceed annual growth, Georgia's timber supply will decline; even though supplies may meet demand over the next few years, it will be through continued overcutting, especially of softwoods.

FORCES ERODING SUPPLY

The forces behind the observed declines in forest acreage and stands of young trees are diverse. Many of today's forests resulted from the natural regeneration of pines (followed by hardwoods in normal succession) on agricultural lands abandoned for crop production between 1940 and 1965. Some lands have been removed from the forest base by conversion to other permanent uses, such as home and industrial sites, highways, and other urban development, or simply are held without improvement for speculative purposes. Other timberlands, once harvested, have not been replanted to trees-- particularly those controlled by non-industrial private owners.

The pressures on farmers are clear; other corporate and individual owners also often have decided against reforesting their lands. In 1983, Albert A. Montgomery of Georgia State University found that only one in four of the private owners of timberlands surveyed reported making improvements to his woodlands during the preceding decade, far fewer than the number who sold timber. Although most landowners considered it desirable to reinvest the proceeds from timber sales in timberland improvements (such as replanting), they gave the use of such funds for business, farming, or personal purposes much higher priority.

Nonfarm investors in large tracts of timberlands have faced somewhat different circumstances from those affecting agricultural owners. Russell B. Milliken of the University of Georgia's School of Forest Resources explains that the 1960s and '70s saw a very rapid rise in the real price appreciation of saw timber and pulpwood. Through 1979, the value of timberland appreciated at a rate 5 to 6 percent above the inflation rate. Important factors in the appreciation were increasing general rates of inflation, a weak U.S. dollar that encouraged exports but held back imports, very low real interest rates, and improved technology and increasing production of pulp, paper, and plywood, which created a strong commercial demand for timberland tracts.

In the early 1980s, Milliken notes, a stronger U.S. dollar discouraged exports and encouraged imports, particularly of lumber; rapid inflation ended; and real interest rates rose, making it more expensive for investors to hold timberlands. Forest product companies also tended to reach their desired levels of self-sufficiency in timber holdings, quite apart from changes in demand for their final products. Demand itself turned sharply downward with the recessions of the early 1980's. As a result of such changes, Milliken estimates that between 1982 and mid-1986, the market value of large tracts of timber, regardless of ownership, fell by up to 50 percent in both Georgia and the U.S. as a whole. Simultaneously, the market price for timber declined drastically, to about half its levels in 1979-81. Thus, a combination of economic factors made the holding of large timber tracts and the replanting of harvested lands less rewarding for many investors.

Natural forces also have affected Georgia's timber supply in ways that could not be predicted precisely. Drought remains a recurrent threat to both newly-planted and well-established forests. Several dry years in the early 1980s were followed by severe drought in 1986; 25 percent of pine seedlings planted in the winter of 1985 in Georgia were not expected to survive, and the growth of older trees was expected to be reduced, possibly delaying their harvest. Fire losses vary from year to year but can be substantial: fire destroyed 47,264 acres of timberland in 1984 and 94,731 acres in 1985. Insects and disease destroy other thousands of trees annually, or force their salvage for lower-value uses. The causes of an overall reduction in pine growth in Georgia and neighboring southeastern states are unclear; the relative long-run effects

of environmental pollution, increased density of maturing stands, competition from hardwoods, the loss of old-field sites, and lower water tables in some areas, remain to be determined.

EFFECTS OF LOWER SUPPLY

Analysts of Georgia's forest resources agree that the prospective drop in the softwood timber supply, by reducing the state's annual timber harvest, will affect the state's forest product industries in the near future. James C. Fortson of the School of Forest Resources at the University of Georgia has developed a model simulating the long-run effects of changes in forest resources. He estimates that some forest product industries, such as paper mills, will see their softwood timber supplies affected as early as 1990 or 1995; by the turn of the century, the shortage of pine timber will be inescapable, since trees planted in the mid-1980s will not reach maturity by then. By 2000, he suggests, total forest industry employment may decline (in part because of continuing technological change), the quantity of forest products will remain constant or decline, and the value of production will rise. Milliken anticipates a variety of long-run effects: over 25 years or so, prices of forest land and products are likely to rise at a premium over the rate of inflation and landowners probably will experience real price and value appreciation of their holdings, but the South may lose market share in forest products.

BOLSTERING SUPPLY

To rebuild Georgia's long-run timber supply, especially of softwoods, will require a continued and massive program of reforestation, with the payoffs coming about two decades from now. The Georgia Forestry Commission already has begun an intensive campaign; with its encouragement, during the last three planting seasons industry and private landowners have replanted over 1.2 million acres, predominantly in pine species. The national Conservation Reserve Program authorized by the 1985 Farm Bill also will encourage Georgia's farmers to reforest, although its total impact is likely to be relatively small. The program allows farmers to receive support payments for withdrawing agricultural land from production and replanting it in erosion-controlling ground covers, including timber. Although an estimated 766,200 acres of the state's farmlands are eligible, Georgia's first-year allocation was 55,100 acres, and by mid-April 1986, only 38,401 acres had been accepted for tree planting. Unless both federal funding and acceptances of land for reforestation increase, Georgia's five-year goal of returning 300,000 acres of farmland to forest land through the program may not be realized. The severe economic conditions facing many of Georgia's farmers may contribute to a new cycle of forest regrowth in another way: as farmers leave agriculture, marginally-productive lands are likely to revert to forest, as they have in earlier agricultural crises.

To meet predicted shortages in softwood timber, some of Georgia's forest products industries may attempt to substitute other raw materials. The state has ample supplies of hardwoods, which are in fact expected to provide most of the increase in timber stocks in the near future. For example, although the pulp and paper industry still depends heavily on softwoods, since 1960 its use of hardwood feedstocks has increased considerably. In 1983, Georgia produced almost 895,000 cords of hardwood roundwood and about 380,000 cords of hardwood residues for pulp manufacture, up substantially from 1982. Converting existing pulp and paper mills to process hardwoods, however, would require substantial new capital investment. An alternative has already been explored by at least two mills: an operating plant at Dublin and a new mill under construction in Effingham County are designed to process recycled paper rather than raw pulpwood. The natural limit on such approaches is the availability of sufficient used paper at a cost, including transportation, that makes the operation profitable. Georgia's manufacturers also might import pulpwood from neighboring states, as many now do to minimize transportation costs.

As of 1984, Georgia was a net exporter of round softwood pulpwood to other southeastern states, but a net importer of round hardwood pulpwood. If pulpwood supplies tighten across the entire Southeast as expected, however, this method of maintaining supply is unlikely to offer a long-run solution. Finally, the possibility of importing feedstock from other countries, particularly South America, is drawing some attention; U.S. foreign trade policy and the value of the dollar are likely to play an important role in whether or not such trade develops. Substantial imports of low-priced pulpwood would, of course, reduce incentives for in-state pulpwood production, and might trigger demands for protective tariffs similar to those sought by lumber producers.

THE IMPACT OF TAX REFORM

Producers of forest products other than pulp and paper may find that Georgia's abundant and largely under-utilized hardwoods provide their best way out of supply problems. In any case, both reforestation and substitution requiring new technology and capital investment will be influenced greatly by recent changes in the federal tax law. The long-term effects of tax reform on timberland investment (and therefore supply) and forest product industries will vary among investors and manufacturers, and will depend in part on complex transition rules. Changes such as the loss of tax credits for reforestation, limits on the deductibility of interest, the elimination of lower capital gains rates, and lower maximum tax rates for corporations and individuals, are considered likely to make long-term investment in forest lands less attractive. Capital-intensive forest product industries will have to adapt to new rules on depreciation, which will pose many more problems for highly automated paper mills than for service industries.

THE DEMAND SIDE

The health of Georgia's forest product industries depends not only on the supply of raw materials, but also on the demand for their products. Although Georgia's recovery from the recessions of the early 1980s and its continuing economic growth have expanded employment and earnings in forestry and the associated manufacturing industries, the longer-run outlook depends on complex forces that may affect specific industries in different ways. Lumber and wood products traditionally are sensitive to changes in the business cycle, expressed through levels of construction; furniture and fixtures are similarly affected. Movements of interest rates are important; declines in interest rates for residential loans encouraged substantial new construction and therefore increased demand for forest products used in building.

Lumber and wood products manufacturers have found their fortunes linked not only to interest rates, however, but also to demographics and foreign trade policy. Georgia's population increased by 9.4 percent between April 1, 1980 and July 1, 1985 and the state is expected to share in continued sunbelt growth, but the critical demographic factor for housing growth may be the rate of new household formation. As the "baby-boom" groups mature and their demand for housing is satisfied, there will be fewer young households to support housing demand, quite apart from other factors that may affect Georgians' ability to invest in residential construction.

The state's lumber and wood products manufacturers increasingly have been concerned not only with potentially lower housing demand, but also with the rapid growth of construction lumber imports from Canada. In mid-1986, the Coalition for Fair Lumber Imports, a national industry group, quoted Canadian-based data indicating that Canadian imports provided almost half of the softwood lumber consumed in Georgia, with only 42 percent of consumption supplied by the Southern pine region; other estimates suggest the figure may be nearly 60 percent. The erosion of construction-lumber markets particularly has affected Georgia's many small manufacturers, who produce lumber primarily for in-state consumption. In the past, their lower transportation costs helped them to compete with lumber shipped in from other parts of the country, but even with transportation costs added, Canadian softwood producers often have undercut their prices. The decline in the value of the U.S. dollar, which has worked to the advantage of forest product industries that ship to areas whose currency has risen in relative value, has offered little help to such producers; the U.S. dollar has remained strong against Canadian currency.

U.S. producers have long argued that stumpage pricing policies followed by Canadian provincial governments give Canadian producers an unfair price advantage. In October 1986, the U.S. Commerce Department agreed, imposing a 15 percent duty on Canadian softwood lumber. By the end of 1986, the Commerce Department must decide whether to raise, lower, or maintain the tariff. The outcome for Georgia's softwood producers is controversial. Producers maintain that the tariff (at the initial level or the final 22 percent sought by the industry) will allow domestic producers to stay in business and will add relatively little to construction costs. Lumber users maintain that, by increasing construction costs, the measure will ultimately price consumers out of the market, reduce housing demand, and lead to unemployment in lumber-using industries. Beyond the tariff, some industry observers have noted that the physical characteristics and consistent quality of Canadian lumber species also challenge Southern pine lumber suppliers, and have urged the industry to upgrade production quality, institute protective packaging, and improve marketing efforts.

THE IMPORTANCE OF EXPORTS

Quite apart from import problems, exports of forest products provide major markets for Georgia's forest product producers, with measurable impacts on employment and value of production (Table 4). In 1983, the latest year for which data are available, total employment related to exports of manufactured products was 76,000, representing 3 percent of Georgia's civilian labor force, 3.9 percent of private sector employment, and 7.7 percent of manufacturing employment in that year. Export-related employment accounted for 1,600 jobs (5.5 percent) in lumber and wood products manufacturing, 3,300 jobs (12 percent) in paper and allied products, and 100 jobs (1 percent) in the furniture and fixtures industry. Export-related employment in the three industries accounted for 12.7 percent of Georgia's total export-related employment.

The three industries had total export-related shipments valued at $721.1 million. The paper and allied products industry was by far the most dependent on exports, with $576 million (12.4 percent) of total shipments export-related. Paper and allied products shipments also contributed 12.8 percent of the value of all manufactured exports, although they represented only 1.1 percent of the value of total manufactured product shipments. Exports of lumber and wood products were valued at $138.4 million, providing 5.7 percent of the value of industry shipments, 3.1 percent of the value of all manufactured exports, and 0.3 percent of the value of all manufacturing shipments. Export-related furniture and fixtures shipments were very small, contributing $6.7 million (1.2 percent) of the value of the industry's shipments, and less than 0.1 percent of manufacturing export shipments and total manufacturing shipments.

EXPORTS, PORTS, AND FOREIGN TRADE

Although exports directly attributable to Georgia's forest products producers provide a relatively small proportion of total manufacturing employment and shipments, forest

Table 4

Export-Related Shipments and Employment in Forest Product Industries, Georgia, 1983

Measure/Unit	Lumber, Wood Products	Furniture[a]	Paper and Allied Products
Value of manufacturers' shipments[b] ($ millions)			
Total for industry	2418.7	572.2	4638.1
Total export related	138.4	6.7	576.0
Total export related as percent of:			
Total industry shipments	5.7	1.2	12.4
All manufacturing export shipments	3.1	0.1	12.8
All manufacturing shipments	0.3	(A)	1.1
Manufacturing employment[c] (thousands)			
Total for industry	29.0	10.2	27.4
Total export related	1.6	0.1	3.3
Total export related as percent of:			
Total industry employment	5.5	1.0	12.0
Total manufacturing export related employment	4.1	0.3	8.3
Total manufacturing employment	0.3	(A)	0.7

(A) Less than 0.1 percent.

[a] Data are for entire industry, including both wood and metal furniture and fixtures.

[b] Industry total shipments include total domestic and export shipments of all its manufacturing establishments. Total export related shipments are the sum of direct and supporting exports.

[c] Industry total employment includes central administrative and auxiliary employment serving operating manufacturing establishments. Total export employment is the sum of direct and supporting export related employment.

Source: U.S. Department of Commerce, Bureau of the Census, *1983 Annual Survey of Manufactures*, Origin of Exports of Manufactured Products (M83 (AS)-5), Table 5, p. 20.

Table 5

Total Trade, Imports and Exports of Forest Products through Georgia Ports[a], 1983

Commodity	Imports	Exports	Total[b]
Forest products, n.e.c.	2,752	401	3,153
Logs	--	5,852	5,852
Fuelwood, charcoal, wastes	1,500	132	1,632
Timber, posts, poles, piling	--	44,536	44,986
Wood chips, staves, moldings	1	310,013	310,014
Lumber	64,745	68,785	133,530
Veneer, plywood, worked wood	72,994	2,781	75,780
Wood manufactures, n.e.c.	4,587	6,940	11,559
Furniture and fixtures	25,159	3,695	29,188
Pulp	82,195	464,187	659,330
Standard newsprint paper	75	5	80
Paper and paperboard	8,261	395,289	466,803
Pulp and paper products, n.e.c.	2,815	3,387	6,417
Total, forest products	265,084	1,306,003	1,748,344
Total, all commodities	5,144,064	4,340,675	12,226,247

-- None reported.

n.e.c. Not elsewhere classified.

[a] Includes shipments through the ports of Savannah and Brunswick, Ga.

[b] Total includes imports and exports in foreign trade, and domestic shipments (coastwise, internal, and local shipments).

Source: U.S. Army Corps of Engineers, Water Resources Support Center, *Water Borne Commerce of the United States, Calendar Year 1983*, Part I, Waterways and Harbors, Atlantic Coast, p. 119, p. 122.

products are vital to the state's ports. In 1983, 1.7 million short tons of forest products, representing 14.3 percent of total shipping, were imported or exported through the ports of Savannah and Brunswick (Table 5). Forest products made up about 30 percent of total export tonnage, and almost 5.2 percent of import tonnage. Timber, wood chips, lumber, pulp, and paper and paperboard products were the most important exports; lumber, veneer, plywood, furniture and fixtures, and pulp were major imports. The ports provide Georgia's forest product industries with strategically located shipping facilities; employment and income generated by port operations, in part supported by forest products, in turn are major elements in the coastal economy.

The future for exports of Georgia's forest products will depend not only on the business cycle, levels of production, foreign trade policy and the relative movements of currencies, but also on the efforts of producers to develop overseas markets. In 1984, the International Trade Development Center of the University of Georgia examined export markets for both Southern wood products and Georgia's principal timber species. Potential softwood markets include the Caribbean, Europe, and the Far East; hardwood markets include Europe, the Far East, and Canada, which imports hardwood logs from the United States, resaws or otherwise processes them, and exports them to Europe. Some firms already have entered these markets: the *Georgia International Trade Directory* for 1985-86 lists 47 firms exporting lumber and wood products, 13 exporting wood furniture and fixtures, and 25 exporting paper and allied products. Sixteen firms import lumber and wood products, five import wood furniture and fixtures, and three import paper and allied products. Although the numbers are small, compared to the total number of firms in Georgia, they indicate that some forest products manufacturers are actively exploring foreign markets.

THE FUTURE

Projections of employment, earnings, and supply, and discussions of some of the factors affecting supply and demand, re-emphasize the importance of forest products to Georgia's economy. The state's forests have contributed greatly to its economic growth, and will remain one of its greatest assets. That the "green power" exerted by forestry and the forest product industries will help to determine the state's future is apparent; the fortunes of Georgia's forests thus will continue to concern industry, government, and citizens at large.

Composite Indexes of Leading and Coincident Georgia Economic Indicators

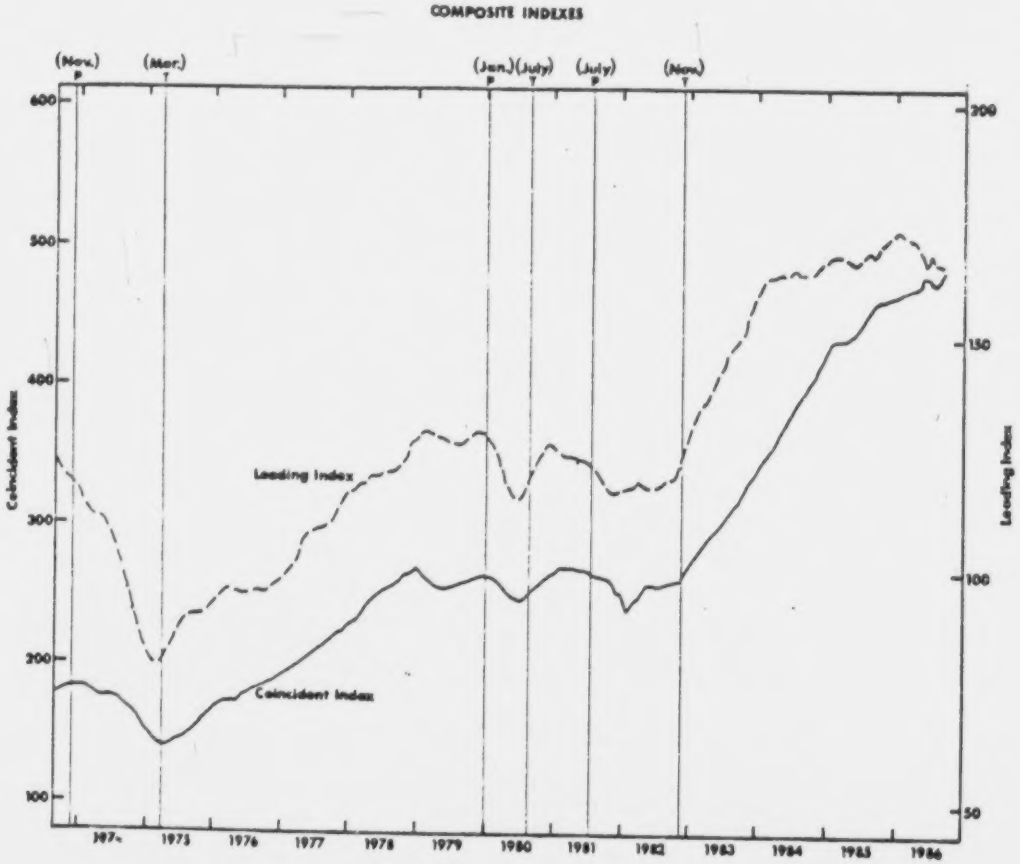
The August levels of the leading and coincident indicators reflect slight changes in the indexes and mixed performance of the component series. The leading indicator continued its downward movement at a slightly accelerated pace on both year-to-year and month-to-month basis. The coincident indicator rebounded in August, however, resulting in growth in the posted year-over-year change.

Overall, the coincident indicator gained 1.4 percent in August, with all three component series showing increases. Seasonally adjusted real retail sales reversed its previous trend and recorded a substantial upswing of 8.2 percent. Seasonally adjusted real manufacturing weekly earnings showed a .7 percent upturn, and seasonally adjusted nonagricultural employment rose .4 percent.

Year-over-year, the coincident indicator and two of its component series advanced over their August 1985 levels. Overall, the coincident indicator rose 7.3 percent. Seasonally adjusted real retail sales rose 4 percent and seasonally adjusted nonagricultural employment increased 2.6 percent. Seasonally adjusted manufacturing earnings dropped slightly below last year's level.

The leading indicator dropped .3 percent in August. Two of the component series have performed erratically in the last four months. Seasonally adjusted initial unemployment claims recorded a substantial downturn of 22.4 percent, a positive factor in the overall indicator. The volatile seasonally adjusted new housing permits series showed a slight upturn of .2 percent. In contrast, the seasonally adjusted Atlanta Help-Wanted Advertising Index continued its decline, dropping by 10.6 percent in August.

Year-over-year, the leading indicator continued its downturn trend, dropping .5 percent below the August 1985 level. After three months of increasing unemployment claims, compared to levels a year ago, seasonally adjusted unemployment claims declined 9.1 percent in August. Seasonally adjusted new housing permits dropped 3.9 percent below its level for the same month in 1985, while the Help Wanted Advertising index for Atlanta continued to drop at a more accelerated pace of 6.5 percent.



GEORGIA BUSINESS STATISTICS

SERIES	AUG 1986	JULY 1986	JUNE 1986	AUG 1985
Georgia Leading Indicators Index[1] (1969=100)	170.25	170.74	170.85	171.15
Georgia Coincident Indicators Index[2] (1969=100)	483.31	476.62	479.11	450.30
Nonagricultural Employment[2] (thousands)	2650.4	2634.0	2640.2	2583.6
Manufacturing Employment[2] (thousands)	553.3	546.4	553.2	557.0
Average Weekly Earnings, Manufacturing[2] (dollars)	334.15	330.04	335.38	326.83
Help Wanted Advertising, Atlanta Index[3] (1967=100)	245	274	289	262
Taxable Retail Sales[4] ($ millions)	3296.4	3082.3	3450.3	3122.4
Building Permits[5]				
Residential Housing Units, Private (thousands)	6.6	5.9	7.6	6.8
Value of Residential Housing ($ thousands)	294158	302791	413924	306237
Value of Nonresidential Construction ($ thousands)	209448	224646[P]	204108[P]	222594
Industrial Buildings	17337	32754	46386	21899
Office, Bank and Other Professional Buildings	45541	47248	26346	97254
Stores and Other Mercantile Buildings	43614	44408	50123	30857
Other	102,956	100236	81253	72584
Consumer Price Index[6] (CPI-U, all items)				
South U.S. (December 1977 = 100)	176.4	--	176.3	174.5
South/Population more than 1,250,000	176.7	--	176.8	174.8
South/Population 385,000 - 1,250,000	178.6	--	178.5	176.0
South/Population 75,000 - 385,000	174.8	--	174.5	173.5
South/Population 2,500 - 75,000	174.3	--	173.9	172.8
Atlanta (1967=100)	338.9	--	338.5	331.4
Prices Received by Farmers, Georgia Index[7] (1977=100)	139	134	121	120
	1986:II	**1986:I**	**1985:IV**	**1985:II**
Total Personal Income[8] ($ millions)	79428	78554	77290	74032

---

[1]Georgia Economic Forecasting Project, Division of Research, College of Business Administration, University of Georgia. Initial monthly values subject to revision.

[2]Labor Information Systems, Georgia Department of Labor.

[3]Series published by The Conference Board, Inc.

[4]Derived by the Division of Research, College of Business Administration, University of Georgia, from data of the Sales and Use Tax System, Georgia Department of Revenue.

[5]U.S. Department of Commerce, Bureau of the Census.

[6]U.S. Department of Labor, Bureau of Labor Statistics, Southeastern Regional Office.

[7]Georgia Department of Agriculture, Georgia Crop Reporting Service.

[8]U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System.

[P] Preliminary; imputation greater than 25 percent.

3/10/87 U6730-2 A

GEORGIA BUSINESS AND ECONOMIC CONDITIONS

January-February 1987
Volume 47, number 1

The Impact of the 1986 Tax Reform on Real Estate

Hugh O. Nourse

Although initial debate about the 1986 tax reform suggested that its purpose was to simplify the tax regulations, that purpose was not achieved except for low income families without income other than wages and salaries. Another purpose was to improve horizontal equity in the tax system. Surveys have shown that taxpayers believed that the rich were not paying their fair share of taxes. A number of credits and incentives were used to encourage construction of new plant and equipment, rehabilitation of older and historical sturctures, and to encourage construction of housing for low income families, as well as investments to improve energy efficiency. These exceptions and incentives provided an opportunity for those with income to invest in particular ways to shelter income from taxation. Decisions for investment were being guided by the tax law. The new reform is an attempt to make the laws neutral with respect to investment decisions.

While the new tax law is an attempt to get individuals to make investment decisions without taking into account special tax breaks, the previous favored status of real estate and housing in the tax code means that real estate decisions are more affected by the new law than other types of decisions. This article explains the special impact of the new tax changes on real estate. Nonetheless, it is important that readers take these comments as general statements on the impact. Because the law has so many details and exceptions, this discussion may not be applicable to all situations.

In general, we will show that the tax reforms will tend to cause prices of investment real estate (apartments, offices, industrial parks, and retail stores) to decrease and rents to rise. The tax law is still not neutral since it provides incentives to build low income housing, and for rehabilitation of older structures and historic buildings. Although installment sales are discouraged by the new law, tax deferred exchanges of property will be even more important than before. One impact of the new tax law will be to restore the advantage of homeownership over renting.

THE INDIVIDUAL REAL ESTATE PROJECT

The following changes in the tax code will reduce the profitability of real estate investment projects.

The Accelerated Cost Recovery System still exists, but the allowable depreciation deduction in each year for projects placed in service after December 31, 1986 has been reduced. In general, the old depreciation rules apply if there was a written contract on March 1, 1986, as long as the property is placed in service before January 1, 1991. For residential property, the accelerated depreciation deduction allowed under the previous law was 175 percent of the declining balance based on a 19-year life. Under the new law, the depreciation deduction will be straight-line depreciation with a life of 27.5 years. This reduces depreciation from amounts decreasing from 9.2 percent of the depreciable base in the first year to around 3 percent in the 19th year under the old law to a flat deduction of 3.6 percent per year under the new law. The comparison is not quite this simple. The reason is that under the old law the accelerated portion of depreciation above a straight-line level depreciation was recaptured at ordinary tax rates on sale. It still paid to do so because the tax was deferred until the property was sold. The new law reduces the allowable depreciation deduction for residential rental property, and increases the amount of income that may be subject to tax.

For nonresidential property, such as office buildings, depreciation allowances essentially have been reduced from straight line for a 19-year life to straight line for a 31.5-

year life. Thus the deduction is reduced from 5.3 percent to 3.6 percent of the depreciable base. The recapture rules were so severe for using accelerated depreciation on nonresidential property under the old law that it usually was not profitable to do so. For nonresidential property the change also increases the amount of income that may be subject to tax, but by a smaller amount.

Capital gains treatment has been changed. Under the old law, 60 percent of the gain was excluded from taxation, so that the effective tax on capital gains was .40 times the individual's tax rate. The maximum tax on capital gains was .40 times .50, or .2. Under the new tax law, capital gains will be treated just like ordinary income and taxed at the individual or corporation's tax rate. In 1987 Congress put a ceiling of 28 percent on the capital gains tax. In subsequent years the potential tax could be as high as the highest tax bracket. The highest tax bracket will be 38.5 percent for individuals and 34 percent for corporations in 1987, though the individuals' bracket may be lowered in 1988. As we note later, the lower schedules may never go into effect. If the 1987 tax rate structure remains, then a likely compromise will be the 1987 ceiling on the capital gains tax rate of 28 percent.

The whole treatment of depreciation and capital gains is especially severe if rapid inflation should recur. First, the reduced depreciation allowance will not keep up with replacement cost of buildings, so that too little depreciation will be allowed with rapid inflation. Second, the tax on the difference between selling price and adjusted basis will be taxed as capital gain, whereas in an inflation it is more likely to be return of capital. Unless property gains in value relative to surrounding property because of an excellent location, real property is declining every year in real value. To tax the increase in nominal value is in fact a tax on a decreased real value of the property. The lawmakers chose to drop proposals that attempted to solve this problem.

Tax losses from real estate investments will no longer be deductible from any other income except other passive investment income, with one exception. Income other than wages and salaries is divided into active business income, portfolio income, and passive income. All rental property is considered passive income. In general, losses from passive activity cannot be deducted against any other income. It can be deducted from income and capital gains from passive activity, or it can be suspended and carried forward to future income and capital gains from passitve activity, but not backward.

An exception has been allowed for moderate income individuals. If adjusted gross income without the passive loss is $100,000 or less, up to $25,000 in losses from rental property may be deducted from non-passive income. If adjusted gross income is above $100,000 without the passive loss, the allowable loss is reduced 50 percent for every dollar above $100,000. Thus, no losses are allowed if income is over $150,000. Furthermore, the individual must not be a limited partner, must own more than a 10 percent share in the property, and must be an active participant. Being active does not mean that you can't use a rental agent, but it does mean you must participate by approving tenants, deciding on rental terms, and approving capital or repair expenditures.

These three provisions were designed specifically to close loopholes and tax sheltered investments in real estate. High depreciation allowances created tax losses, although there might have been excellent cash flows from the project. These tax losses were then deducted against other income to reduce taxes. Thus, the real estate investment sheltered income generated by the project from taxes, and sheltered other income from taxes to the extent that there were taxable income losses. The new law reduces depreciation, which will reduce the possibility of tax losses, and it prevents using such losses, if they occur, from being deducted against other income.

Transition rules were devised to avoid hardships for those already invested in real estate limited partnership tax shelters. In 1987, 65 percent of passive income losses may be deductible against other income; in 1988, 40 percent will be deductible; in 1989, 20 percent will be deductible; in 1990, 10 percent will be deductible; and in 1991 no passive income losses will be deductible against income other than passive income.

Real estate is no longer excluded from the "at risk" rules of other investments. The idea is that you can no longer deduct losses that amount to more than the sum of

GEORGIA BUSINESS AND ECONOMIC CONDITIONS

January-February 1987
Volume 47, number 1

DIVISION OF RESEARCH

Albert W. Niemi, Jr.
Dean of the College
Director of Research

Phillip A. Cartwright
Director, Economic Forecasting

Lorena M. Akioka
Editor

Suzanne A. Lindsay
Research Coordinator

GEORGIA BUSINESS AND ECONOMIC CONDITIONS (ISSN 0297-3857) is published bimonthly by the Division of Research, College of Business Administration, The University of Georgia, as a service to the business and academic communities. Signed articles reflect the author's opinion but not necessarily those of the Division of Research, College of Business, or The University of Georgia. This publication is sent free of charge upon request.

Manuscripts and letters to the Editor should be sent directly to us. **Postmaster** send address changes to: Division of Research, College of Business Administration, The University of Georgia, Athens, GA 30602

Second class postage paid at Athens, Georgia

your cash contributions, adjusted basis of your property contributions, and amounts of debt for which you are personally liable. Nonetheless, an important break is still open for real estate. Often real estate is financed by a "nonrecourse mortgage". Such debt is secured by the real property only, and not by personal guarantees of the investors involved. As long as such debt is secured by real property, is not disguised equity, and is obtained from a qualified lender, then it too can be counted as part of the risk of the business.

So far, the changes in rules have reduced the profitability and returns to real estate projects. In exchange, the tax rates have been reduced. The top bracket for individuals has been reduced from 50 percent to 38.5 percent in 1987; and dropped from 46 percent to 34 percent for corporations. Furthermore, standard deductions and exemptions for individuals have been increased while some previously allowed itemized deductions are cancelled. The law does state that a two-bracket system should be in effect in 1988 with a top bracket of 28 percent and a lower bracket of 15 percent for individuals. The top rate for certain individuals could be as high as 33 percent. Given the current unbalanced budget, and comments by some congressmen, we suspect that the 1987 tax brackets may continue into the future, and that the two-bracket system may never take effect.

AN EXAMPLE

In order to see what effect on rates of return these changes would cause in a real estate investment, we estimated the cash flows for an apartment complex before and after the tax changes. Consider the following hypothetical example:

	Scheduled Rental Income	$100,000
-	Vacancy and Collection Loss	8,000
=	Gross Operating Income	92,000
-	Operating Expenses	42,044
=	Net Operating Income	49,956
-	Annual Debt Service	42,220
=	Cash Flow Before Taxes	7,736

We have assumed that the price of the investment is $531,447, which makes the ratio of net operating income to price, the cap rate, equal to .094. Land is 15 percent of price. The mortgage is 75 percent of price, and earns an interest rate of 10.3 percent. It is amortized over 35 years, but the term is only ten years. Rents, expenses, and the price of the property increase 3 percent per year. The individual owner is in the top tax bracket, so that income from the real estate would be taxed at the rate of 50 percent under the old law, and at 38.5 percent under the new law. Notice that we have assumed that the 33 percent rate will not go into effect.

Using a five-year projection and including capital gains treatments for both cases, the internal rate of return on the investment would drop from 16.2 percent to 9.6 percent. It would take a 21 percent decrease in price or a 14.5 percent increase in rent to push the yield back to 16.2 percent under the new tax law. Under current market conditions with a surplus of apartments, it is not likely that rents would increase for several years.

A similar analysis using an office building instead of an apartment complex shows that under the old tax law the investment would yield an internal rate of return of 14.8 percent. With the new law, this would be reduced to 11.9 percent. It would be necessary to reduce price 8.2 percent or to increase rents 11.5 percent to maintain the yield before the tax change. Similarly, office building markets tend to be overbuilt, so that one would expect reductions in price rather than increases in rent.

Our analysis suggests a decrease in price of 21 percent for residential property and an 8.2 percent drop for nonresidential property. This would cause a decrease in new construction, which most observers feel is a good thing given the current oversupply of office buildings and apartments. The situation would only last until current surplus space is absorbed by increases in population and employment, then rents would have to increase to make it profitable to begin building again.

But is this analysis a good prediction of what will happen? Not necessarily. The trouble is that it assumes that the only thing that changes is the tax law, and the analysis does not take account of other indirect effects of the tax law changes. For example, given no change in savings, the reduction in investment (new construction) would probably reduce interest rates. But how will the tax law affect savings relative to investment? Will target rates of return remain the same, or will they decrease? If interest rates and target rates of return decrease, and there is some indication that they are already doing so, then price adjustments may not have to be as great as suggested earlier.

An analysis of the impact of the 1981 tax reform which gave real estate additional shelter from taxation by increasing depreciation allowances did not show the increases in prices or the decreases in rents that our foregoing calculation would have projected. Furthermore, there is some indication that changes in prices did not occur until the first tax return was calculated after the change. Then prices were estimated to have increased about 8.9 percent.

Prices of investment property will decrease but probably not by much as the calculations suggested. Construction will not cease. There still will be opportunities for new space in some locations, but construction will be reduced considerably. Renewed construction will await absorption of present vacancies.

TAX CREDITS

Although the new law eliminated the accelerated depreciation provisions for housing provided to low income families, it has added a tax credit for construction or acquisition of housing for these families. In 1987 the tax credit is 9 percent of the construction or rehabilitation

cost of housing rented to low income families. The tax credit is 4 percent of the acquisition cost of purchases of existing housing rented to low income families or of new housing financed by federal subsidies. After 1987, these percentages are subject to monthly revision.

The tax credit is deducted each year for ten years. Additional requirements to claim the credit include expenditure of at least $2,000 per housing unit, at least 20 percent of the units must be occupied by families whose income is equal to or less than 50 percent of the community median income (or at least 40 percent of the units must be occupied by families whose income is equal to or less than 60 percent of the community median income), the gross rent to income ratio may not exceed 30 percent (depends on family size), the housing cannot be used as transient housing, and the units must remain as low income housing for fifteen years.

Thus, the new law changes the incentive for construction and ownership of housing for low income families from accelerated depreciation to tax credits.

Other tax credits previously available for real estate are those for rehabilitating older buildings. They have been kept, but with a lower percentage. A 10 percent credit is available for rehabilitating nonresidential buildings built prior to 1936; a 20 percent credit is available for rehabilitating nonresidential buildings that are certified historical structures. In this case, any credits taken must be deducted from the adjusted basis of the property before calculating depreciation.

These tax credits encourage rehabilitation of older structures by allowing a direct credit against tax liability. This is precisely the kind of use of the tax law that the reformers wanted to avoid. They were attempting to make the tax law neutral with respect to investment decisions. But in the case of housing for low income families and rehabilitation of older or historic buildings they introduced, in one case, and kept, in the other case, tax credits to encourage these activities.

INSTALLMENT SALES AND TAX DEFERRED EXCHANGES

Accounting for capital gains on installment sales also is changed. Previously, the capital gains were recognized proportionately as the payments were received. Since sellers borrowed against the installment contract and received their cash up front while paying taxes on the capital gains as the installments were received, Congress changed the law so that debt in excess of the adjusted basis of the property would be considered as gain in the year of sale. Taxes will be assessed as if that excess were received in the year of sale. This clause on installment sales took effect on February 28, 1986 on all sales by real estate dealers and developers and on sales of investment property or business property worth more than $150,000.

Consequently, this accelerates the capital gains tax payments on installment sales. In particular, builders who provide financing for homebuyers through use of builder bonds will be affected by the new rules because they cash out the purchase money-mortgages. The new law will discourage builder financing. It will also discourage the use of installment sales for investment property because financing by the seller is not counted as part of the value in property at risk. The new at risk provisions mentioned previously will come into play.

Interestingly, no change was made in the law with respect to tax-deferred exchanges. With the increase in taxes on capital gains, we should see more attempts to use exchanges to defer taxes on disposition. Furthermore, since depreciation is lower, there is less incentive to begin a new accelerated depreciation schedule with a new acquisition, which will also make tax-deferred exchanges more popular. Without going into detail, the essential feature of an exchange is that with some adjustments, the property received bears the adjusted basis of the property swapped. The adjustments are for transactions costs and any gain recognized at the time of sale because of cash, reduction in liability, or personal property added to balance the exchange. The effect of the exchange is to defer the bulk of capital gains taxes until the acquired property is sold.

OWNING VERSUS RENTING

The Tax Reform Act of 1981 made renting preferable to owning because the favorable depreciation allowances made it possible to keep rents lower relative to value. The new law, as we have seen, reverses the favorable depreciation allowances, and still keeps all the tax advantages of home ownership. The primary advantage of a homeowner over a renter is that the implicit returns to capital invested in the house are not taxed, whereas the renter invests his capital elsewhere and is taxed on the yield. Second, the owner gets to deduct property tax and mortgage interest payments, not against the implicit income from the house, but from other income. Third, the homeowner is allowed to defer capital gains taxes on sales of the primary house under certain conditions, and is then allowed a one time capital gains exemption up to $125,000 after age 55. Fourth, the new tax reform law disallows deductions of personal interest (interest cost of borrowing to buy a car, for vacation expenses, college expenses, etc.) from income with the exception of interest on mortgages secured by a primary or second home.

The deductibility of interest on mortgages is restricted to a loan no greater than the original purchase price plus the value of improvements. Interest on loans for the purpose of education or medical expenses may be deducted even if the previous limits are exceeded. This disallows interest on loans against the appreciated value of housing except for special educational or medical purposes. There are special transition rules allowing proportionate amounts of personal interest to be deductible over the next few years. Nonetheless, the homeowner has another advantage over the renter who does not have this source of interest deductibility.

Again the tax law is not neutral with respect to an investing decision. Homeownership maintains and even increases its tax advantage relative to renting.

SOME GENERAL COMMENTS

In general, the law is supposed to shift a relative share of the burden of taxation from individuals to businesses. Yet even with lower taxes, will individuals be better off? It is not clear that they will. The government is still taking the same amount of taxes, and if businesses are paying a greater share it will be deducted from their profits. Just as we have shown that the decrease in depreciation allowances will cause increased taxes on rental property, will reduce construction, and will cause rent increases in the near future, so the shift of the tax burden to businesses will probably cause increases in the prices of goods and services purchased. We will pay the taxes through the goods and services that we buy rather than from income.

Finally, in real estate investment the tax structure is only one of the many uncertainties that must be assessed. Markets, financing, management, and regulations must all be considered. Variations in vacancy rates can have a much more severe impact on real estate investments than variations in the tax rate. Although pronouncements suggest that this tax reform may be a long-term change, past experience suggests otherwise. The tax law has been changed every two to four years. Indeed, one of the expected changes from this law to reduce the maximum tax bracket to 28 or 33 percent in 1988 will probably never be put into effect. Given such uncertainties, will the tax law have the expected changes discussed here? We feel the new tax situation may simply increase uncertainty and thus increase the required yield necessary to cover the additional risk.

Hugh O. Nourse is Distinguished Professor of Insurance, Legal Studies, and Real Estate at the University of Georgia.

Some Perspectives on Georgia's Motor Fuel Tax

Charles F. Floyd

The Georgia motor fuel tax provides the overwhelming percentage of the funds utilized to build and maintain the state highway network, and many contend that the current level of the tax is inadequate for this task. In light of this debate, let us examine some perspectives on the Georgia motor fuel tax:

- What has happened to Georgia's motor fuel tax collections in comparison with other state taxes?
- What is the relative purchasing power of funds provided by the Georgia motor fuel tax compared to earlier years?
- What is the current "burden" of the motor fuel tax for the average motorist relative to earlier years?
- How does the Georgia motor fuel tax rate compare with that in other states?

STATE REVENUE COLLECTIONS 1962-1985

Georgia state revenue collections by major source for fiscal years 1982-1985 are presented in Table 1. Motor fuel tax collections increased from $89.5 million in 1962 to $277.3 million in 1985, an average annual compound rate of growth of 5 percent. Since 1975, however, they have increased at an average annual rate of only 2 percent, far below both the rate of increase in highway usage (motor vehicle miles) and the rate of inflation.

Motor fuel tax collections have also increased far slower than those of other major Georgia state revenue sources. The tax comprised 23.3 percent of state government revenue collections in 1962, but this

Table 1

Georgia Revenue Collections by Source 1962-1985
(Millions of Dollars)

Year	Motor Fuel Taxes	General Sales Taxes	Personal Income Taxes	Corporate Income Taxes	Tag & Title Fees	Other Revenues	Total State Revenues
1985	277.3	1,632.7	1,718.3	430.5	65.1	250.1	4,374.0
1984	264.6	1,460.9	1,466.1	327.0	59.9	240.1	3,818.6
1983	249.3	1,270.9	1,342.1	248.9	55.8	222.3	3,389.3
1982	244.4	1,189.0	1,181.8	278.1	50.4	217.9	3,161.6
1981	245.2	1,108.4	1,037.2	260.6	47.4	212.7	2,911.5
1980	252.2	1,006.0	872.8	247.0	46.8	200.0	2,624.8
1979	264.5	891.7	729.5	233.2	45.1	189.9	2,353.9
1978	256.0	791.3	604.1	210.1	45.7	187.0	2,094.2
1977	243.7	686.3	495.6	177.0	43.6	180.3	1,826.5
1976	233.0	618.8	413.0	138.7	40.3	164.2	1,608.0
1975	227.0	563.7	373.5	122.7	38.7	160.0	1,485.6
1974	230.0	537.3	340.7	137.0	41.0	168.9	1,454.9
1973	226.2	477.2	285.1	117.5	39.1	153.9	1,299.0
1972	209.0	425.4	239.9	92.6	35.1	143.1	1,145.1
1971	165.5	361.2	183.4	85.4	32.6	121.1	949.2
1970	154.5	335.8	185.0	88.1	32.1	108.8	904.3
1969	141.8	308.0	139.2	76.1	28.9	101.1	795.1
1968	131.0	271.2	116.0	66.2	26.5	92.4	703.3
1967	122.4	241.8	100.6	67.2	24.4	84.8	641.2
1966	114.5	227.2	80.3	61.6	24.1	77.9	585.6
1965	106.9	207.6	64.3	48.1	22.1	74.6	523.6
1964	99.8	185.4	56.0	41.0	21.2	64.8	468.2
1963	94.0	172.0	49.4	36.0	18.9	52.2	422.5
1962	89.5	157.3	43.7	24.8	18.0	50.4	383.7

Source: Georgia Department of Revenue.

percentage had fallen to only 6.3 percent by 1985.

General Sales Tax Collections. The two major sources of Georgia tax revenue that have shown relatively rapid growth are the general sales tax and the personal income tax. Sales tax collections increased from $157.3 million in 1962 to $1.6 billion in 1985, an average annual rate of increase of 10.7 percent. Although the state sales tax rate has remained constant at 3 percent of sales since 1951, collections have increased along with increases in prices. The sales tax as a percentage of total revenues has stayed relatively constant around 38 percent. As Table 2 shows, they have also remained virtually constant as a percentage of total Georgia personal income, at slightly over 2 percent.

Personal Income Tax Collections. The personal income tax exhibits the largest growth of any major source of Georgia state government revenues, increasing at an average annual compound rate of 17.3 percent since 1962, with total collections almost doubling during the five years from fiscal 1980 to fiscal 1985. As a percentage of total revenues, the personal income tax grew from 11.4 percent in 1962 to 39.3 percent in 1985. These large increases have occurred because (1) the level of income has risen with inflation, and (2) "bracket creep" has forced more taxpayers into the higher Georgia income tax brackets.

Therefore, even though their basic tax rates have not increased for many years, the two major sources of Georgia state government revenues have grown along with, and even faster than, escalations in prices and incomes. Obviously, the state government would be unable to meet its current needs if the general sales tax and the personal income tax were tied to some earlier level of prices and incomes.

THE MOTOR FUEL TAX

The Georgia motor fuel tax consists of a gallonage tax of 7.5 cents, and a 3 percent sales tax on the sales price (excluding the 9 cent federal and 7.5 cent state motor fuel taxes). Thus, the exact amount of tax paid by the individual motorist depends on the grade and price of the fuel purchased. At a price of 79.9 cents the tax is 9.4 cents per gallon; at $1.25 the tax is 10.8 cents per gallon.

With a constant tax rate, several factors influence the level of motor fuel tax collections, including level of highway usage, changes in motor fuel prices, and increased fuel efficiency of cars.

Level of Highway Usage. Other things the same, the higher the level of highway usage, the higher the level of motor fuel tax collections. Vehicle miles traveled on Georgia highways increased from 17,886 million miles in 1982 to 50,541 million miles in 1984. They increased 44 percent between 1974 and 1984, compared to an increase in motor fuel tax collections of only 15 percent.

Motor Fuel Price Changes. Changes in motor fuel prices affect the amount of sales tax per gallon. Between 1972 and 1982 the average cost of unleaded gasoline rose from 36.1 cents to $1.38 per gallon. This

Table 2

Georgia Revenue Collections by Source 1962-1985
Percent of Total Personal Income

Year	Motor Fuel Taxes	General Sales Taxes	Personal Income Taxes	Corporate Income Taxes	Tag & Title Fees	Other Revenues	Total State Revenues
1985	0.37	2.18	2.29	0.57	0.09	0.33	5.84
1984	0.38	2.12	2.13	0.47	0.09	0.35	5.54
1983	0.41	2.07	2.19	0.41	0.09	0.36	5.53
1982	0.45	2.20	2.19	0.51	0.09	0.40	5.85
1981	0.49	2.21	2.07	0.52	0.09	0.42	5.81
1980	0.57	2.28	1.97	0.56	0.11	0.45	5.94
1979	0.67	2.24	1.84	0.59	0.11	0.48	5.92
1978	0.72	2.24	1.71	0.59	0.13	0.53	5.93
1977	0.79	2.21	1.60	0.57	0.14	0.58	5.89
1976	0.83	2.21	1.48	0.50	0.14	0.59	5.75
1975	0.90	2.24	1.49	0.49	0.15	0.64	5.91
1974	0.98	2.28	1.45	0.58	0.17	0.72	6.18
1973	1.05	2.23	1.33	0.55	0.18	0.72	6.06
1972	1.11	2.25	1.27	0.49	0.19	0.76	6.06
1971	0.99	2.16	1.09	0.51	0.19	0.72	5.66
1970	1.01	2.19	1.21	0.58	0.21	0.71	5.91
1969	1.00	2.18	0.98	0.54	0.20	0.72	5.62
1968	1.04	2.15	0.92	0.52	0.21	0.73	5.57
1967	1.07	2.11	0.88	0.59	0.21	0.74	5.61
1966	1.09	2.16	0.76	0.58	0.23	0.74	5.56
1965	1.12	2.18	0.67	0.50	0.23	0.78	5.49
1964	1.16	2.15	0.65	0.48	0.25	0.75	5.43
1963	1.18	2.16	0.62	0.45	0.24	0.66	5.31
1962	1.22	2.15	0.60	0.34	0.25	0.69	5.24

Source: Georgia Department of Revenue; U.S. Department of Commerce.

Table 3

Georgia Motor Fuel Cost Per Mile 1972-1986

Year	Unleaded Gasoline Cost (Gal.)	Georgia Gas Tax (Gal.)	Average New Car Miles Per Gallon	Georgia Fuel Tax Cost Per Mile (Cents)	Consumer Price Index (1972=100)	"Real" Fuel Tax Cost Per Mile (Cents)
1986	79.9	9.4	26.5	0.35	264.0	0.13
1985	114.0	10.4	26.1	0.40	260.7	0.15
1984	121.0	10.6	25.6	0.42	248.3	0.17
1983	124.0	10.7	24.6	0.44	238.1	0.18
1982	129.6	10.9	25.0	0.44	230.7	0.19
1981	137.8	11.3	24.2	0.47	217.4	0.21
1980	124.5	10.9	22.6	0.48	197.0	0.24
1979	90.3	9.9	19.3	0.51	173.5	0.29
1978	67.0	9.2	18.7	0.49	155.9	0.31
1977	65.6	9.1	17.7	0.52	144.9	0.36
1976	61.4	9.0	16.5	0.55	136.1	0.40
1975	57.1	8.9	15.1	0.59	128.7	0.46
1974	52.4	8.7	12.8	0.68	117.9	0.58
1973	38.8	8.3	13.3	0.63	106.2	0.59
1972	36.1	8.2	13.6	0.61	100.0	0.61

Source: U.S. Department of Transportation; U.S. Department of Labor.

raised the motor fuel tax 2.7 cents per gallon from 8.2 cents to 10.9 cents. Conversely, the average cost for unleaded gasoline fell from $1.38 to 79.9 cents between 1982 and the end of 1986, decreasing the sales tax portion of the Georgia motor fuel tax by 1.5 cents for a total tax of 9.4 cents per gallon.

Fuel Efficiency. The primary reason that increases in motor fuel tax collections have not kept up with highway usage is the greatly increased efficiency of cars. The data in Table 3 indicate that the average miles per gallon for new cars reached a low of 12.8 in 1974. Since that time, this figure has increased to 26.5 miles per gallon, meaning that the average new car in 1986 uses only half the fuel per mile compared to the average new car of 1974.

RELATIVE PURCHASING POWER OF THE GAS TAX

In order to support the same level of highway services, the motor fuel tax must climb fast enough to cover both increases in highway usage and increases in the cost of highway construction and maintenance. It is not doing so. Data show that the amount of Georgia motor fuel tax collected per 1000 vehicle miles of travel has fallen from a high of .64 of a cent in 1974 to .52 of a cent in 1984, primarily because of increased fuel efficiency.

Unfortunately, highway construction and maintenance costs have greatly increased during recent years. According to the Federal Highway Administration, construction costs on federal aid projects increased 55 percent between 1977 and 1984. If we convert Georgia motor fuel tax collections and revenues per mile of travel to "constant 1977 dollars," that is, to reflect the FHWA Construction Cost Index with a 1977 base, we see that "real" motor fuel tax revenues peaked in 1972 and had fallen to approximately one-half that level by 1984. "Real" revenues per 1000 vehicle miles of travel have decreased steadily from 1.3 cents per 1000 VMT in 1962 to .34 cents in 1984. In other words, when adjusted to reflect rising construction costs, the level of Georgia highway revenues in 1984 was only one-half the level in 1974 and about one-fourth that of 1962.

THE RELATIVE TAX BURDEN

Except for a slight increase in 1972 when the gallonage tax was last raised, Georgia motor fuel tax revenues as a percentage of total personal income have dropped steadily, from 1.2 percent in 1962 to only .4 percent in 1985. By comparison, personal income taxes increased from .6 percent of Georgia total personal income in 1962 to 2.3 percent in 1985.

The Georgia motor fuel tax cost per mile of travel for the individual motorist depends on many factors, primarily the fuel efficiency of his vehicle and the price of fuel. If we assume an "average" motorist who pays the average price for gas and whose automobile achieves the average miles per gallon for the average new car, the Georgia motor fuel tax cost per mile has fallen from a high of .68 of a cent in 1974 to .35 of a cent in 1986. In other words, this "average" motorist is now paying approximately one-half the motor fuel tax per mile he paid in 1974.

This, of course, is not the entire story. Prices and incomes have risen during the analysis period. According to the U.S. Department of Labor, consumer prices in 1986 were 264 percent the 1972 level. If we adjust the Georgia motor fuel tax cost per mile to reflect the impact of inflation, the "real" cost in 1986 was slightly more than one-fifth the 1972 level.

Table 4

State Motor Fuel Tax Rates

	Tax Per Gallon	Added Tax[a] (%)	Local Option per Gal.	Maximum Tax	Other Revenue[b]	Last Increase (Year)
Alabama	13		4	17	G, P	84
Alaska	8			8	G, P, U	61
Arizona	16		0.5	16.5	G, W, U	85
Arkansas	13.5			13.5	G, P, W, U	85
California	9	6	1.8	15.6	W, U	83
Colorado	18			18	G, U, W	86
Connecticut	17	2		18.6	G, T	86
Delaware	13			13	G	86
D. C.	15.5			15.5	G	85
Florida	4	5	7	16.7	G, T, U	83
Georgia	7.5	3	0.8	10.2	G	71
Hawaii	11	4	6	20.2	G, U	85
Idaho	14.5			14.5	G, U	83
Illinois	13	6	6	23.8	P, T	86
Indiana	14	5	1	19	C	85
Iowa	16			16	P, U	86
Kansas	11	10.5*		11	P, G, U	85
Kentucky	10	5		15	W	86
Louisiana	16	1		16.8	G	84
Maine	14			14	G, W	83
Maryland	13.5	10*		13.5	W	84
Massachusetts	11	10*		11	U	83
Michigan	15	4		18.2	G, U	85
Minnesota	17			17	G, U	84
Mississippi	9	6	3	16.8	G, U	72
Missouri	7			7	U	72
Montana	17			17	G, W, U	86
Nebraska	14.5	5		19	G	86
Nevada	13		4	17	U	86
New Hampshire	14			14	U	81
New Jersey	8			8	G, T	81
New Mexico	11		2	13	G, W	85
New York	8	6.8	8	21.4	G, P, T	85
North Carolina	14.3	3		16.3	U	86
North Dakota	13			13	G, U	83
Ohio	12			12	T	83
Oklahoma	10			10	C, U	85
Oregon	11		4	15	W	86
Pennsylvania	12	6		16.8	P	84
Rhode Island	13*	2		15	G, P	83
South Carolina	13			13	G, U	81
South Dakota	13		1	14		81
Tennessee	17		1	18	P	86
Texas	15			15	G, P, U	86
Utah	14			14	P, U	84
Vermont	13			13	G, U	83
Virginia	17		2	19	U	86
Washington	18			18	U	84
West Virginia	10.5	5		15.4	G, U	83
Wisconsin	17.5			17.5	U	85
Wyoming	8			8	G, P, U	75

Note: Proposals for tax increases were pending in California, Connecticut, Idaho, Iowa, Massachusetts, Michigan, New Jersey, Oregon, South Carolina, and Wisconsin.

* Variable tax above floor price in percent.

[a] Added tax is indicated as a percentage; converted to cents per gallon for "Maximum Tax".

[b] Other Revenue coded as follows:
G = general funds
P = petroleum products, severance, old county taxes
W = weight distance tax on trucks
U = user generated revenue, fines, fees
C = commercial vehicle surcharge
T = tolls

Source: Highway Users Federation

COMPARISONS WITH OTHER STATES

Another measure of the "burden" of the Georgia motor fuel tax is to compare its rate with those imposed by other states. From data prepared by the Washington-based Highway Users Federation that are presented in Table 4, we see that the Georgia motor fuel tax rate is among the nation's lowest. Even after adding the local option 1 percent sales tax on gasoline, the maximum tax in Georgia at the 80 cents per gallon comparison price is 10.2 cents. This contrasts with a national average per gallon tax of 15.4 cents and a 16.2 cents average tax for the southeastern states. Most neighboring states have a motor fuel tax above 16 cents per gallon. Moreover, most of the other states gain significant highway funding from other sources such as license fees and weight distance taxes on trucks.

SUMMARY

Unlike other major sources of Georgia state government revenue, revenues from the motor fuel tax have not increased as rapidly as demand for services or rates of inflation. Furthermore, in contrast to other major sources of state government revenue, the burden of the tax on the average motorist, particularly in "real" terms, has fallen considerably in recent years and is far below that in other states. In light of this, either Georgia must raise its rate of taxes on motor fuel use, or it must accept a greatly reduced highway construction and maintenance program.

Charles F. Floyd is professor of real estate at the University of Georgia.

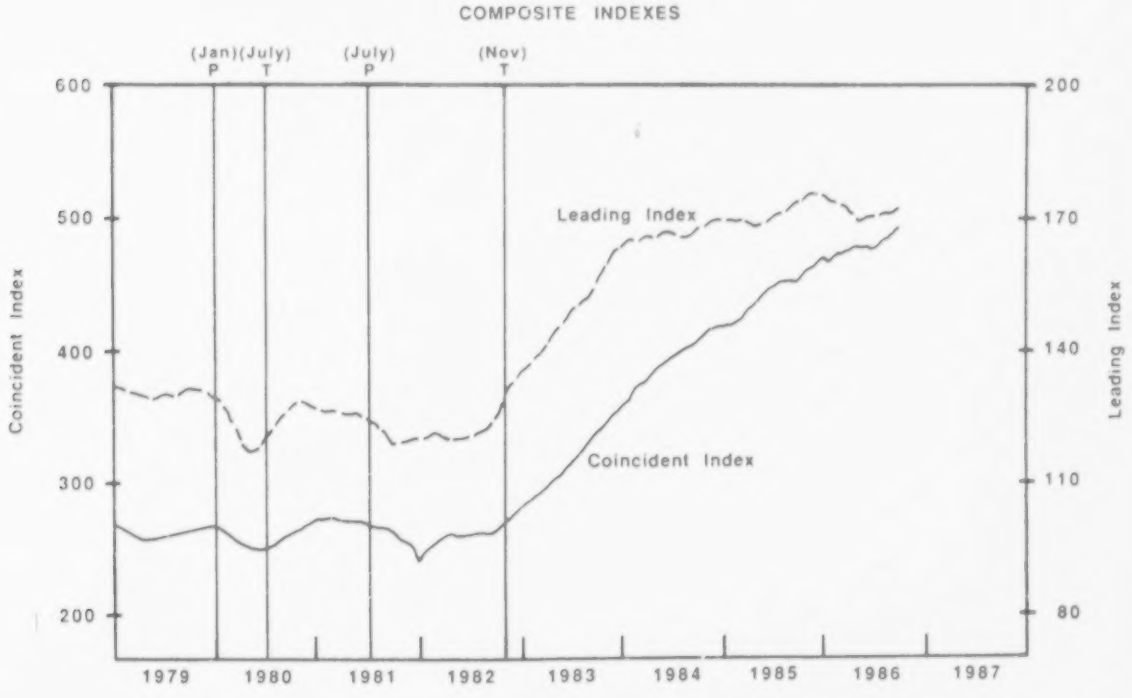
Composite Indexes of Leading and Coincident Georgia Economic Indicators

Overall, the leading indicator showed an essentially stable performance during September and October. Though it declined slightly in September, it rebounded by 1.4 percent in October. Two of its component series rose significantly during these months. The volatile seasonally adjusted new housing permits series gained 5.3 percent in September and advanced another 7.1 percent in October. The seasonally adjusted Help Wanted Advertising index for Atlanta recorded an upswing of 2.9 percent in September. In October it advanced at the more rapid rate of 7.1 percent. The remaining series, seasonally adjusted initial unemployment claims, increased by 1.1 percent in September and accelerated slightly to 1.8 percent the following month. This is a factor contributing negatively to the month-over-month performance of the leading index.

Year-over-year, the leading indicator was mixed. In September and in October it declined 1.1 and .5 percent, respectively, below its preceding year levels. In September, seasonally adjusted initial unemployment claims were 2.4 percent over their year ago level. In October, they declined 7.3 percent below October 1985 levels. Seasonally adjusted new housing permits had a volatile performance compared to the same months in 1985. In September it was 16.2 percent below its 1985 level; in October it rebounded and showed a 3.6 percent upturn over the level for the same month in 1985. The seasonally adjusted Help Wanted Advertising Index for Atlanta declined 7.7 percent in September, and 7.2 percent in October, below the previous year's levels.

Overall, the coincident indicator continued upward. Month-over-month, it advanced .9 percent in September and 1.5 percent in October. The component series showed mixed results for the same months. Seasonally adjusted real retail sales dropped 7.2 percent in September and rebounded in October, rising 1.6 percent. Seasonally adjusted real manufacturing weekly earnings rose 1.5 percent in September, but lost .6 percent in October. Seasonally adjusted nonagricullural employment advanced .6 and .7 percent in September and October, respectively.

On a year-over-year basis, the coincident indicator and its component series generally showed a relatively large increment over the levels for the same months in 1985. The index rose 7.7 percent in September and 9 percent in October compared to the same months in the previous year. September's seasonally adjusted real retail sales were 1.8 percent below the level for the same month in 1985. In October it rebounded to 3 percent above the previous year's value. The remaining series had positive performances. Seasonally adjusted real manufacturing weekly earnings showed increases of 1.6 and 1.4 percent in September and October, respectively, above the corresponding months in 1985. Seasonally adjusted nonagricultural employment continued to accelerate, rising 3.2 percent in both months.



GEORGIA BUSINESS STATISTICS

SERIES	OCT 1986	SEPT 1986	AUG 1986	OCT 1985
Georgia Leading Indicators Index[1] (1969=100)	173.40	171.04	171.17	174.19
Georgia Coincident Indicators Index[2] (1969=100)	495.22	488.16	483.80	454.46
Nonagricultural Employment[2] (thousands)	2688.8	2672.9	2650.4	2606.0
Manufacturing Employment[2] (thousands)	557.9	559.7	553.3	560.3
Average Weekly Earnings, Manufacturing[2] (dollars)	341.52	342.79	334.15	328.86
Help Wanted Advertising, Atlanta Index[3] (1967=100)	270	252	245	291
Taxable Retail Sales[4] ($ millions)	3152.7	3214.7	3296.4	3013.7
Building Permits[5]				
Residential Housing Units, Private (thousands)	6.2	6.5	6.6	6.0
Value of Residential Housing ($ thousands)	339514	315141	294158	268206
Value of Nonresidential Construction ($ thousands)	204732[P]	188300[P]	209448	178266
Industrial Buildings	21034	27066	17337	34540
Office, Bank and Other Professional Buildings	37563	18106	45541	30795
Stores and Other Mercantile Buildings	57897	34394	43614	29547
Other	88238	108734	102956	83384
Consumer Price Index[6] (CPI-U, all items)				
South U.S. (December 1977 = 100)	177.5	--	176.4	175.7
South/Population more than 1,250,000	177.6	--	176.7	175.6
South/Population 385,000 - 1,250,000	180.0	--	178.6	177.4
South/Population 75,000 - 385,000	175.8	--	174.8	174.3
South/Population 2,500 - 75,000	175.4	--	174.3	174.8
Atlanta (1967=100)	339.9	--	338.9	330.0
Prices Received by Farmers, Georgia Index[7] (1977=100)	131[r]	132	139	116[r]
	1986:II	**1986:I**	**1985:IV**	**1985:II**
Total Personal Income[8] ($ millions)	79428	78554	77290	74032

[1]Georgia Economic Forecasting Project, Division of Research, College of Business Administration, University of Georgia. Initial monthly values subject to revision.

[2]Labor Information Systems, Georgia Department of Labor.

[3]Series published by The Conference Board, Inc.

[4]Derived by the Division of Research, College of Business Administration, University of Georgia, from data of the Sales and Use Tax System, Georgia Department of Revenue.

[5]U.S. Department of Commerce, Bureau of the Census.

[6]U.S. Department of Labor, Bureau of Labor Statistics, Southeastern Regional Office.

[7]Georgia Department of Agriculture, Georgia Crop Reporting Service.

[8]U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System.

[P] Preliminary; imputation greater than 25 percent.

[r] Revised.

Division of Research
College of Business Administration
University of Georgia
Athens, Georgia 30602

Second Class Postage Paid
Athens, Georgia

20814 SK1UI 6541
CONGRESSIONAL INFO SERVICE-SK1
4520 EAST-WEST HIGHWAY
BETHESDA, MAYLAND 20814

5/14/87 U6730-2A

GEORGIA BUSINESS AND ECONOMIC CONDITIONS

March-April 1987
Volume 47, number 2

1987 Economic Outlook: An Update

Phillip A. Cartwright

NATIONAL OUTLOOK

The most recent statistics show that the U.S. economy is expanding somewhat sluggishly. While we are not predicting a recession over the 1987 forecast horizon, the likelihood that the economy will post more than a moderate growth rate is extremely low. In real terms, the national outlook calls for economic activity to grow about 2.3 percent, which is close to the rate of growth reported for 1986. Inflation is expected to remain under control. As measured by the Consumer Price Index - All Urban Consumers, inflation is forecast to rise to just over 3 percent in 1987.

An important key to a stronger economy continues to be an improvement in the trade balance that will allow consumer spending to be translated into domestic production and income. While fundamentals such as the relative strength of the dollar and differences in the growth rates between the U.S. economy and those of our trading partners have shifted toward an improvement in the U.S. trade deficit, the forecast shows no significant change until later in 1987. Even after taking into account the more favorable conditions and after adjusting for inflation, the net export figure probably will be in the neighborhood of $150 billion in 1986 and narrow by about $10 billion in 1987.

At this time it appears that consumer markets are weakening. This is not surprising, however. It is doubtful that the pace of consumption spending could continue and a significant increase is not expected in the short term. The outlook for a modest increase in inflation over the forecast horizon and no significant improvement in the general economic climate translates into slow growth in real personal consumption expenditures. Despite the possibility that the expectation of lower tax rates will bolster demand, other factors including slow growth in personal income, a low saving rate and a high ratio of consumer installment credit to after-tax income support the forecast for an increase in expenditures of just over 2 percent in 1987.

The January numbers for housing starts were good and recent reports indicate the strength in single-family unit construction activity will continue. The outlook predicts that the overall pace of activity will moderate in 1987 largely because of a downturn in apartment building activity. This scenario seems likely given current high vacancy rates and overbuilding. In addition, many of the tax shelter incentives have been eliminated by tax reform. The forecast predicts housing starts will reach 1.7 million units in 1987.

While the overall picture calls for continuing moderate growth, the current data reveal the continuance of the imbalance in activity between the goods producing and non-goods producing sectors. The most recent data available at this writing shows the January unemployment rate standing at 6.7 percent. General labor market conditions are expected to change very little over the next year, so at best we can expect a drop of only .1 to .2 percent in the unemployment rate for 1987.

Establishment employment growth has been predominantly in the service sector and we anticipate the pattern will continue. The forecast calls for growth in employment of 1.9 percent in 1987. Over this period, employment growth in the service sector is expected to bolster the overall growth rate, while employment in manufacturing is forecast to remain flat. Much of the pessimism related to manufacturing is owed to the fact that near term conditions in the goods producing sector are heavily dependent on consumer spending and trade. These components of our forecast are not expected to post changes large enough to improve the outlook for manufacturing employment.

The projection for gross private domestic investment is tentative due to anticipated soft figures for business fixed investment and residential construction. On the side of business investment, capacity utilization is forecast to

remain below 80 percent over the forecast horizon. This fact, combined with the impacts of tax reform, makes a significant increase in plant spending unlikely, although the outlook is brighter for purchases of equipment. The factors influencing decisions regarding residential construction were discussed earlier.

It appears as though the Administration and Congress regard monetary policy as the only tool available for stimulating the economy while fiscal policy is being held in check by the Gramm-Rudman-Hollings law and the tax reform bill. The Federal Reserve has responded to the weakness in the economy's industrial sector and growing trade deficit by cutting the discount rate it charges banks to borrow from it and by expanding bank reserves. Between March and August, the discount rate was cut four times, dropping it from 7.5 percent to 5.5 percent. At this time, we expect short-term rates such as that on 3-month Treasury bills to remain relatively stable over the forecast horizon. We expect the T-bill rate to average about 5.1 percent in 1987. Longer term rates -- AA utility bonds, for example -- are expected to drift toward an average of 8.8 percent in 1987.

On the fiscal policy side, through the provisions of the tax revision bill are in place, the question remains about how the integration of Gramm-Rudman-Hollings and an outlook for continuing large budget deficits with tax reform will affect the economy.

One widely discussed feature of the tax package is revenue neutrality defined over a five-year horizon. More specifically, the bill is designed so that over the longer term, the overall effect on the demand for goods and services will be neither stimulative nor contractive.

Over the years 1987 and 1988, there is concern that the short-term consequences of tax reform will be negative. The reason is related to transitional difficulties. First, the tax reform package will lead to a net short-term increase in taxes. This is because the closing of loopholes in early 1987 will broaden the tax base, while cuts in tax rates will be delayed until the second six months. The net tax increase is likely to exert downward pressure on the economy.

Second, the bill changes the tax structure dramatically. While consumer spending may increase on the basis of expected reductions in tax rates, the proposed structure for 1987 also could delay spending. Further, the losers of tax reform in the business sector -- firms that are more capital intensive -- will cut back more quickly than winners who benefit from the reduction in corporate taxes.

As already mentioned, another consideration is that construction of multi-family dwellings is likely to decline. In addition, if reform discourages both personal and business borrowing, then dampened activity will be the short-term result.

There is evidence that these short-term negative consequences of tax reform may disappear. While the long-term consequences are uncertain, it seems likely that the combined effects of lower tax rates and base broadening measures such as the elimination of the preference for long-term capital gains and deduction limitations on investment losses and interest will lead to a more efficient allocation of resources. More specifically, investors will seek to increase real economic returns on investments rather than search for tax loopholes as they do now.

To summarize, the forecast does not call for a recession in 1987, however, the economy is expected to grow only moderately. While the accommodative position of the Federal Reserve and decline in the relative value of the dollar may result in some improvement with respect to the trade deficit and stimulate the nation's industrial sector somewhat, we do not anticipate a significant change in economic growth in 1987 relative to 1986.

STATE OUTLOOK

The expansion which began in Georgia during late 1982 continued through 1986 although the pace of economic growth slowed somewhat relative to 1984 and to the nation as a whole in 1985 and 1986. Analyzing growth in terms of real personal income shows that income growth in 1985 slowed to 4.1 percent following the 8.3 percent change recorded a year earlier. Not only have the growth rates been declining absolutely, but while growth rates far exceeded those recorded for the nation in 1984, the figures now are beginning to parallel the national numbers. More specifically, the 8.3 percent growth rate recorded for Georgia in 1984 compares favorably with the 5.1 percent figure posted for the U.S. In 1985, the disparity between the national and state growth rates

GEORGIA BUSINESS AND ECONOMIC CONDITIONS

March-April 1987
Volume 47, number 2

DIVISION OF RESEARCH

Albert W. Niemi, Jr.
Dean of the College
Director of Research

Phillip A. Cartwright
Director, Economic Forecasting

Lorena M. Akioka
Editor

Suzanne A. Lindsay
Research Coordinator

GEORGIA BUSINESS AND ECONOMIC CONDITIONS (ISSN 0297-3857) is published bimonthly by the Division of Research, College of Business Administration, The University of Georgia, as a service to the business and academic communities. Signed articles reflect the author's opinion but not necessarily those of the Division of Research, College of Business, or The University of Georgia. This publication is sent free of charge upon request.

Manuscripts and letters to the Editor should be sent directly to us. **Postmaster** send address changes to: Division of Research, College of Business Administration, The University of Georgia, Athens, GA 30602

Second class postage paid at Athens, Georgia

narrowed considerably, and in 1986, we expect Georgia's growth in real personal income to range between 3.3 to 3.6 percent which is about the same as that expected for the U.S. economy.

A similar pattern is shown by the nonagricultural employment figures. In 1984, Georgia's nonagricultural employment number rose 7.4 percent over the 1983 level. Nonagricultural employment in the U.S. rose 4.8 percent over the same period. In 1985, Georgia's employment growth continued to outpace the nation's with the respective growth rates amounting to 4.8 and 3.3 percent. In 1986, Georgia's growth continued to run ahead of the national average. Thus, consistent with the national picture, the expansion will be ongoing, yet the overall rates of income and employment growth will be well below the extremely vigorous advances observed in earlier years, and the extent to which Georgia's growth exceeds the nation's will be far less significant.

A closer look at the employment figures gives insight into the relative strengths of the state's economy. First, consider the pattern of growth in the manufacturing sector. Following a 4.5 percent drop in employment during 1982, the figure increased by 2.2 percent in 1983. Year-over-year, the manufacturing sector grew by 6.9 percent, adding 35,400 jobs in 1984. In 1985, manufacturing employment continued to expand, but the rate of growth plummeted to 1.4 percent. Recovering slightly in 1986, job growth in this sector grew 1.4 percent.

Over 70 percent of nonagricultural jobs in the state are in the broadly defined service sector. The expansion in this sector alone has fuelled job growth in Georgia. In 1983, service sector employment advanced by 3.8 percent and in 1984 it rose to 6.7 percent. In terms of jobs, these percentage figures translate into 60,900 and 111,200 in 1983 and 1984, respectively. In 1985, expansion in the number of service jobs continued as the year-over-year gain reached 5.4 percent or 95,000 jobs. Employment growth in the service sector continued to bolster the aggregate figures for the state in 1986, posting a gain of 3.1 percent.

Other signs of a slower and more variable economic growth pattern at the state level are the numbers for total taxable sales, and total revenue. During 1984, real sales rose 9.9 percent over the 1983 level and inflation adjusted revenue advanced 11.8 percent. In 1985, coincident with the maturing of the cyclical expansion, the growth in sales dropped to 4 percent, while the revenue total slid to 6.3 percent. The data show that in 1986 sales and revenues grew by 8.3 and 4.9 percent, respectively.

Housing permits are considered to be a reliable indicator of economic activity in real estate markets. They represent intentions to build rather than actual structures put into place, however. Following the 68.4 percent surge in permit activity in 1983, the rate of growth dropped off to 5.8 and 4.1 percent in the following two years. The current figures show that permit figures rose about 11.7 percent in 1986.

Consistent with our national forecast calling for continued moderate growth, we expect growth in the Georgia economy to continue in 1987, but growth rates for aggregate real income and employment will be below those in 1986 and closer to those expected for the nation. Personal income is forecast to grow 2.6 percent in 1987, which is quite close to the 2.3 percent advance forecast at the national level. Nonagricultural employment is expected to grow by 2 percent in Georgia, which is not significantly above the 1.9 percent rise forecast for the U.S. In real terms, total taxable sales and revenues are expected to advance by 2.6 and 3.1 percent, respectively.

The 1987 forecast predicts meagre growth of only 1 percent in the state's industrial sector since we expect the structural shifts of recent years to continue. We anticipate gains in electrical machinery, scientific and electrical equipment, and printing and publishing, although this growth will be moderated by continuing weakness in the textile and apparel sectors.

As in the recent past, we expect the service sector to support the state's aggregate growth in personal income and employment. The forecast shows that the other services subsector leads service sector growth with an annual rise of 3.6 percent. In terms of the employment figures, the percentage increase is equivalent to an additional 17,300 jobs. On the trailing end of the service sector's growth, the government services total is expected to advance only 1 percent.

We anticipate that housing permits will decline by about 10 percent in 1987. The forecast is based on factors which are discussed in conjunction with residential investment at the national level. In addition to the factors of tax reform and high vacancy rates for multi-family dwellings, the relatively slow rates of growth forecast for personal income and employment make an increase in the housing permit figure unlikely.

The farm income situation is bleak. In light of the unfavorable weather conditions prevalent in the Southeast and market conditions which are unfavorable to many farmers in the state, we expect the volatile farm income figure to drop by 2 percent in 1987. If our forecast scenario is correct, the 1987 decline will be the fourth drop in the past five years.

Overall, the outlook is good in the sense that we project a continuing expansion at both the national and state levels. We do expect growth in 1987 to be below that in 1986, and we forecast income and employment growth rates for the state which are quite close to the advances predicted for the U.S. economy. Since we do not see any dramatic shifts in the fundamental conditions which are dampening activity in the industrial sector, we recognize that growth will continue to be uneven across sectors of the national and state economies.

Phillip A. Cartwright is Director of the Georgia Economic Forecasting Project.

The Future of Agriculture in Georgia

Jeffrey L. Jordan

Over the next three years, agriculture is expected to be dominated by low prices, worldwide surpluses, a weak export market, uncertain and changing government programs, and a continuing financial crisis for many farmers.

The century's worst drought in the Southeast, coupled with abundant rain and bumper crops elsewhere in the U.S. plus huge stocks of most crops, the first agricultural trade deficit during a part of 1986, and low prices for major crops, portends the crisis in Georgia's agriculture will linger through the rest of the decade. Land values fell 5 percent in Georgia in 1986, continuing the decline which began in 1981. This trend probably will continue through 1987. The agricultural outlook in Georgia is bleak as the effects of the drought, weak export prospects, and prices will make 1987 most difficult for those farmers already facing financial difficulties.

SHORT-RUN OUTLOOK

The usually large carry-over of grains will exert further downward pressure on prices. Crop prices in 1986 were at their lowest in eight years. The carry-over into 1986 was nearly 75 percent of the amount needed for a full year's supply of grains, and the outlook for 1987 is for even larger carry-over with continued downward pressure on prices.

With stable domestic consumption, the export market has become a progressively important outlet for U.S. production. Unfortunately though, world demand for U.S. farm products dropped sharply during the 1980s. From 1980 to 1985, the value of agricultural exports dropped 29 percent, to $31 billion. Farm products comprized less than 14 percent of the total value of all U.S. exports in 1986, the lowest level since 1940. During 1986, for the first time in 14 years, domestic utilization of wheat in the U.S. exceeded exports. Corn exports were expected to drop one-third in 1986 from a poor 1985. Some recovery was experienced in late 1986 for rice, cotton and soybeans, however. In Georgia, the value of exports dropped from a high of $617 million in 1983 to $615 million in 1984 and $520 million in 1986.

The Financial Crisis. The financial crisis in agriculture is expected to worsen in 1987. The Farm Credit System has estimated a national loss of up to $1.8 billion for 1986, added to the $2.7 billion lost in 1985. Nearly half of the $50 billion in U.S. farm debt that cannot be paid (depending on revenue in-flow) will come due in 1987. For those farmers with debt problems, 1987 may be the worst year of the present five-year crisis.

As of September 30, 1986, Georgia had the largest number of farms of any state in the nation in danger of foreclosure by the Farmers Home Administration (FmHA). During fiscal year 1986, an estimated 862 Georgia farmers were issued letters demanding repayment of debt, or had to sell equipment, property, or livestock to pay back loans to the FmHA. This number represented over 10 percent of Georgia farmers who borrowed from the FmHA, and was the result of Georgia having the highest rate of delinquency in debt payment to the FmHA in the nation. Nearly 50 percent of Georgia's FmHA borrowers were delinquent on their loans at the end of fiscal year 1986, compared to a nationwide average of 28 percent.

The Government Accounting Office reported that as of June 30, 1986, Georgia ranked second nationally in the number of chronically delinquent borrowers. The report showed that 3,589 Georgia farmers who borrowed directly from the FmHA had been delinquent on loans for three consecutive years. Only Texas, with 3,984 chronically delinquent loans, exceeded this number. For fiscal year 1986, 263 FmHA borrowers in Georgia filed for bankruptcy.

The number of bankruptcy applications across the country is expected to rise in 1987 since the passage of the Family Farm Bankruptcy Act of 1986. This new Chapter 12 of the bankruptcy laws will enable family farmers to seek protection from creditors rather than face foreclosure. The law is restricted to individuals or closely held corporations or partnerships with aggregate debt of

less than $1.5 million and with 80 percent of that debt from farming operations. In order to qualify under Chapter 12, 50 percent of gross income must come from farming and for family corporations, more than 50 percent of the stock must be held by one family and relatives, and 80 percent of the corporate assets must be related to farming operations. Although the new law applies to all agricultural debt, the FmHA expects a large number of applications since 28 percent of its total farm loans of $39 billion were behind on payments as of September 30, 1986.

Nationally, this financial crisis is being felt by banks that loan primarily to farmers. Despite record government payments to farmers, the number of farm banks with more problem loans than capital rose almost 50 percent in the first half of 1986. By mid-year 1986, 207 agricultural banks had more problem loans than capital, up from 139 as of that date in 1985, and 60 in June 1984. While 118 farm banks failed in 1985 and 1986, 604 farm banks were listed as problem banks by the Federal Deposit Insurance Corporation at the end of 1986. The FDIC report indicated that farm loan write-offs were running 20 percent higher than in 1985, when banks wrote off a record $1.4 billion in farm credits. One in every nine planting loans held in the U.S. by commercial banks was delinquent on June 30, 1986.

The shake-out in agriculture will continue in 1987 although many farmers have already gone. There were 61,000 fewer farms in the U.S. in June 1986, down 3 percent from 1985 and 5 percent from 1984. In Georgia, there were 49,000 farms in 1986, a thousand fewer than in 1985. For the first time since 1981, the average size of Georgia farms decreased to 265 acres, reflecting the removal of 500,000 acres of crop land from production. Another 5,000 of the state's farmers and ranchers are expected to leave farming in 1987, a drop of over 10 percent. According to the Georgia Department of Agriculture, of the 49,000 farmers now producing, over half are in financial trouble. The short-run outlook for Georgia's agriculture is a continued decline in the number of farms.

Even with a declining dollar and farm programs designed to increase exports, a significant trade imbalance is likely to continue, barring unforeseen shortfalls in food production elsewhere. While the 1985 farm bill was designed to improve U.S. exports and may increase the volume of exports under heavy subsidization, lower prices will depress the dollar value of farm exports for the foreseeable future. By 1989, the agricultural trade surplus is expected to be only $3 billion. The financial situation for Georgia's farmers in terms of cash flow is not expected to improve in 1987. Some poultry and swine producers are expected to experience improved cash flow in 1987 and prospects are modestly good for beef cattle, peaches, blueberries, peanut and pecan growers, and those dairy farmers still in business. Debt problems will continue, however, for a large portion of farm operations.

LONG-RUN OUTLOOK

Although cash receipts to some farmers are expected to drop in 1987, the continuing decline in cash expenses, including lower or stable interest rates, and an increase in government payments will keep net cash income from falling. Further, as the decline in the value of the U.S. dollar broadens to include the currencies of major agricultural competitors, a modest improvement in U.S. exports is expected by 1988. Increased growth in other economies should improve the U.S. trade deficit situation. At its recent annual outlook conference, the U.S. Department of Agriculture predicted U.S. net cash income for 1987 to be near $48 billion, up from the $44 to $45 billion estimated for 1986. This gain will be the result of high government payments that currently account for almost one-third of farm income, however.

U.S. Farm Projections by Year 2000

		1982		2000	
Sales Class	Value of farm products sold annually	Number of farms (000)	Percent of all farms	Number of farms (000)	Percent of all farms
Small and part-time	Less than $100,000	1,936.9	86	1,000.2	80
Moderate	$100,000-$250,000	180.7	10	75.0	6
Large and very large	More than $250,000	121.7	4	175.0	14
Total		2,239.3	100	1,250.2	100

Source: Office of Technology Assessment, "Technology, Public Policy and the Changing Structure of American Agriculture," March 1986, and the Pennsylvania State University Cooperative Extension Service, "Agriculture in the Year 2000," *Farm Economics*.

Not all farmers are facing bankruptcy or losing money. Many of the largest farms, with ready assets and low debt, will continue to profit. Due to low grain prices, poultry and livestock producers are benefiting. Falling grain prices result in windfall gains for producers of animal products. Yet the subsequent increase in output may result in financial stress for animal producers when grain prices eventually recover -- a well documented cycle in animal production. Government payments to producers of wheat, corn, cotton and rice will partially offset the effects of low commodity prices. These low commodity prices also benefit food processors and consumers.

Between 1987 and the turn of the century, the U.S. agricultural production sector will be undergoing fundamental changes. Like the automobile, steel, and mining industries, agriculture must adjust to a new role in the world market. The success of agriculture will depend on harnessing technological advances that lower production costs. Gains to producers, however, may be transitory as output increases and prices fall.

Restructuring. During the last years of the 1980s, the shrinkage in the number of farmers in the U.S. and Georgia will continue, and some farm suppliers also will be forced to quit. These changes will not occur without dislocations.

In a recent government report, a projection of farm numbers in the year 2000 indicates that small and part-time, and moderate-sized farms will be reduced substantially, while the number of large farms will increase. Small and part-time farms, as defined in the report, are projected to drop 48 percent from 1982 levels, and moderate-sized farms, 58 percent. While the number of large and very large farms is expected to increase 44 percent by the year 2000, the total number of farms is forecast to decline by the same percentage. The report projected that only 50,000 of the 1.2 million farms in 2000 will account for 75 percent of all U.S. agricultural production.

Still, this does not imply that corporate farming will dominate U.S. agriculture in 2000. Nor does it imply a wholesale loss in prime agricultural land. As farms become fewer and larger, marginal crop land in Georgia probably will revert to forests.

As the table indicates, moderate-sized farms will experience a dramatic drop in market share and net farm income. These typically family farms will bear the brunt of the restructuring in agriculture. As some family farms go out of business, however, the best agricultural land will be combined with operating farms, resulting in larger and fewer farms. Whether families will continue to provide the majority of capital, labor, and management is uncertain.

Technological Innovation. Assuming no major world conflicts or interruptions to world trade, better economic cooperation between countries, no collapse in the international debt structure, and a U.S. economy that continues long-term growth, the outlook for U.S. agriculture in 2000 is an improvement over the 1980s. This forecast is the result of the most important source of U.S. competitive advantage in the future: technological innovation.

While opportunities for world trade will expand in the future, the competition in international markets will increase. The key to competing internationally will be in lowered U.S. prices as well as in least-cost production. The production of more agricultural goods at lower cost will result from the application of biotechnology to farming operators. Gains for U.S. agriculture will be made by applying biological, engineering, and genetic advances to production agriculture. In addition, advances in information technology will improve both farm management and post-harvest handling and marketing. While such gains accrue largely to consumers, new industries and employment opportunities also materialize.

Advances in plant and animal production through biotechnology and information technologies are underway. The most immediate advances are being made with dairy and other livestock. Also, genetic advances in plants that increase production, produce disease and insect resistant strains, increase protein levels and produce their own supplies of herbicides and fertilizers, will be available by 2000. Information technology advances, such as electronic marketing, are also under development.

Adjustments. The adjustments in agriculture will continue to force some farmers out of business. The impact of the process can be cushioned by a number of factors, however.

The falling value of farm land has been a major factor in the current financial crisis. While many have blamed speculators for the rising land prices, and the subsequent collapse, one agricultural economist concludes that the collapse in land values in the early 1980s was the result of historically high real interest rates. While real interest rates in 1987 remain historically high, monetary policies that lower real interest rates will aid in the adjustment process.

The federal government's farm policies also will affect how farm adjustments are made. Although the main beneficiaries of current government farm spending are large farmers, they do not need direct government payments or subsidies to survive. Government policy more geared to moderate-sized farms would cushion the adjustment process.

Overall, the 1987-1990 period will be difficult for many farmers in Georgia. After the dynamic adjustment process, and the application of new least-cost production technologies, however, the year 2000 should see a stronger and healthier agricultural sector.

Jeffrey L. Jordan is assistant professor of agricultural economics at the University of Georgia's Experiment Station.

Regional Economic Conditions

Hugh O. Nourse and John Drye

This is the first in a series of articles on the sixteen economic regions of Georgia and how structural changes within and between these regions have affected the state's general growth. Because aggregate data for the whole state often hide different trends in sub-state areas, we will attempt to describe a few of these trends for each region. We will focus primarily on plant location; employment and unemployment; sales and stores in major retail centers; dollars spent on construction of office, industrial and retail buildings; and the numbers of dwelling units for which permits have been issued.

The new regional divisions, shown on the map, are based on current metropolitan statistical areas, commuter data, and geographic characteristics of each county. This regional breakdown was devised by James Fisher, professor and chairman of the geography department at the University of Georgia. We begin the series by highlighting the Northeast Piedmont Region in which Athens is the major hub.

NORTHEAST PIEDMONT REGION

The Northeast Piedmont's major center is Athens, but it includes the cities of Gainesville, Toccoa, Hartwell, Jefferson, Commerce, and Madison as well. The seven most common employers in its industrial base are the textiles and apparel; lumber and wood products; printing and publishing; stone, clay and glass; non-electrical machinery; and food products industries (see Table 1). The lumber and wood products industries are largest, with 133 operating plants, but the apparel industry employs the greater number. Concentration of the apparel, textile, and food products industries in this region is typical of the entire state as these three account for 42 percent of Georgia's work force. The Naval Supply Corps School and the University of Georgia also are located here and account for a large proportion of employment in the Athens area.

Industrial growth appears to be promising in the lumber and wood products; stone, clay, and glass; and non-electrical manufacturing industries. From 1980-1986, each of these industries experienced a statewide growth in employment of 22.3 percent, 19.4 percent, and 15.5 percent, respectively. The apparel industry, which is the largest employer in the region, experienced a 1.8 percent drop in employment statewide, however. Employment in the food products industry was almost static, gaining only 3 percent over the six years.

The Northeast Piedmont's civilian labor force employment rates have been fairly consistent with that for the entire state except for 1982 and 1985. In 1982, this region's unemployment rate was 8.3 percent as compared to 7.8 percent for the state. In 1985, however, industrial decline hit the region extremely hard, and the unemployment rate climbed to 9.9 percent. It was 3.4 percent higher than the state rate. A total of 20,511 persons were unemployed in the Northeast Piedmont during 1985 (Figure 1). During this same period, employment in the region increased by only 4,326. As a result, the net loss in employment from 1984-1985 was 16,185.

The region's retail trade is divided among three retail centers. The Athens trade area includes Clarke, Oglethorpe, Oconee, and Madison counties. The Atlanta trade area encompasses Banks, Barrow, Green, Habersham, Hall, Jackson, Morgan, and White counties; and the Anderson, S.C. trade area includes Elbert, Hart, Franklin, and Stephens counties. Sales in 1983 for the Athens metropolitan retail trade area were $560,756,000. Clarke County accounted for 93 percent of these sales. In 1982 the central business district of Athens and the Georgia Square Mall accounted for $95 million in sales, which is about one-fifth of all the trade area sales (Table 2).

Residential construction for single dwellings in the Northeast Piedmont increased considerably in 1983 after three declining years (Figure 2). Interest rates played a key role in both the rise and fall in the level of residential construction. The compounded rate of growth from 1980-1985 for single-unit construction and total residential construction was 10.2 percent and 13.7 percent, respectively. Notice that the construction rates do not seem to fit with the large unemployment rates mentioned

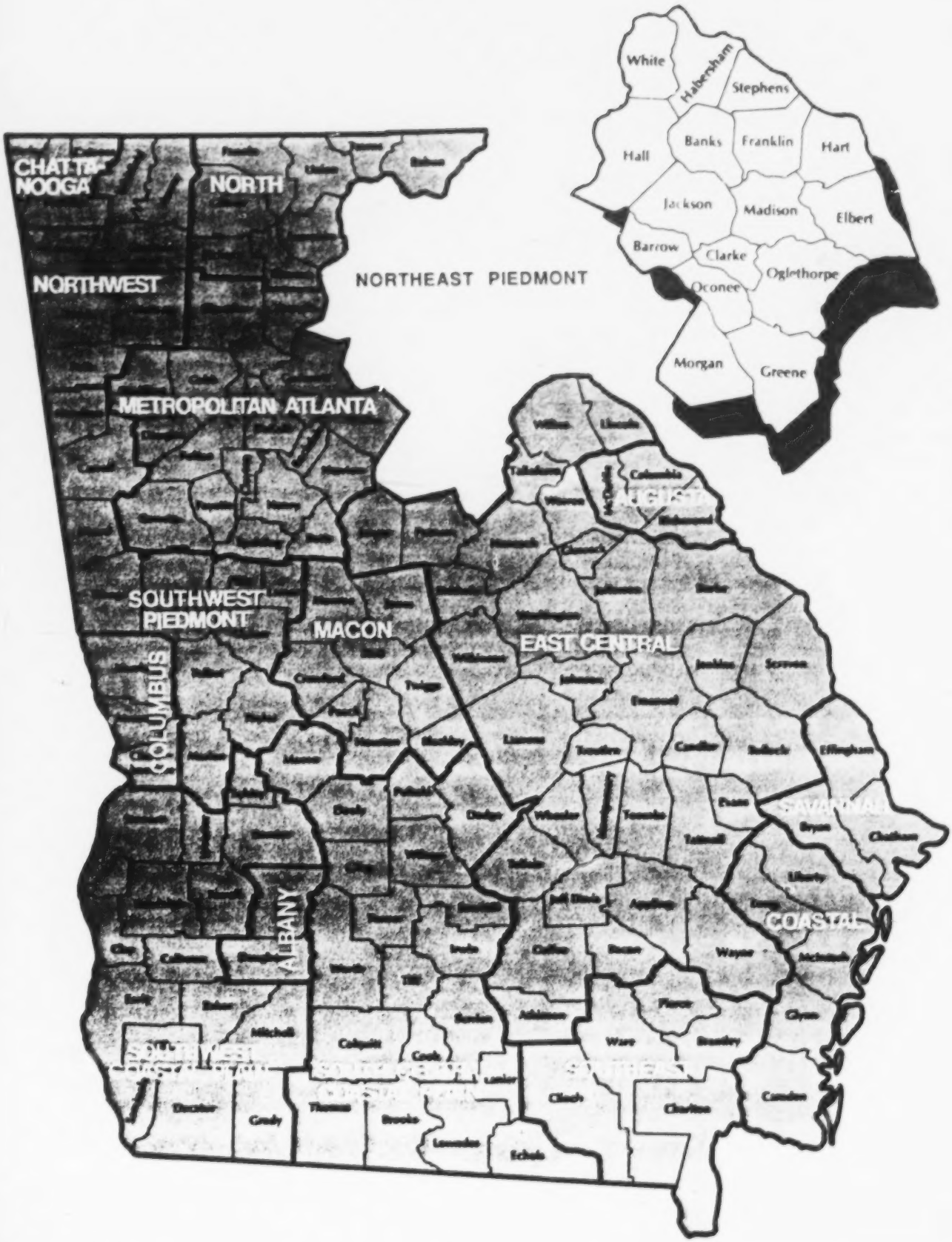

CHATTA-
NOOGA
NORTH
NORTHWEST
NORTHEAST PIEDMONT
METROPOLITAN ATLANTA
SOUTHWEST
PIEDMONT
MACON
EAST CENTRAL
COLUMBUS
ALBANY
COASTAL
White
Habersham
Stephens
Hall
Banks
Franklin
Hart
Jackson
Madison
Elbert
Barrow
Clarke
Oglethorpe
Oconee
Morgan
Greene

Table 1

Northeast Piedmont Region
Number of Manufacturing Plants by Employment

Industry	Number of Employees 1-19	20-99	100-249	>250	Total
Food & kindred products	18	24	5	11	58
Tobacco manufactures	0	0	0	0	0
Textile mill products	6	6	16	12	40
Apparel and other textile products	9	40	17	18	84
Lumber and wood products	120	7	5	1	133
Furniture and fixtures	20	9	2	0	33
Paper and allied products	2	3	2	0	7
Printing and publishing	50	12	2	0	64
Chemicals and allied products	10	8	0	1	19
Petroleum & coal products	1	0	0	0	1
Rubber and misc. plastics products	6	7	4	0	17
Leather & leather products	2	2	2	0	6
Stone, clay, and glass products	84	26	3	2	115
Primary metal industries	3	1	1	1	6
Fabricated metal products	16	12	2	0	30
Machinery, except electrical	50	14	5	2	71
Elctric and electronic equipment	4	3	1	6	14
Transportation equipment	7	0	1	2	10
Instruments and related products	3	1	0	2	6
Misc. manufacturing industries	11	4	3	1	19
Total	422	179	71	61	733

Source: U.S. Department of Commerce, *Census of Manufacturing*, 1982.

Table 2

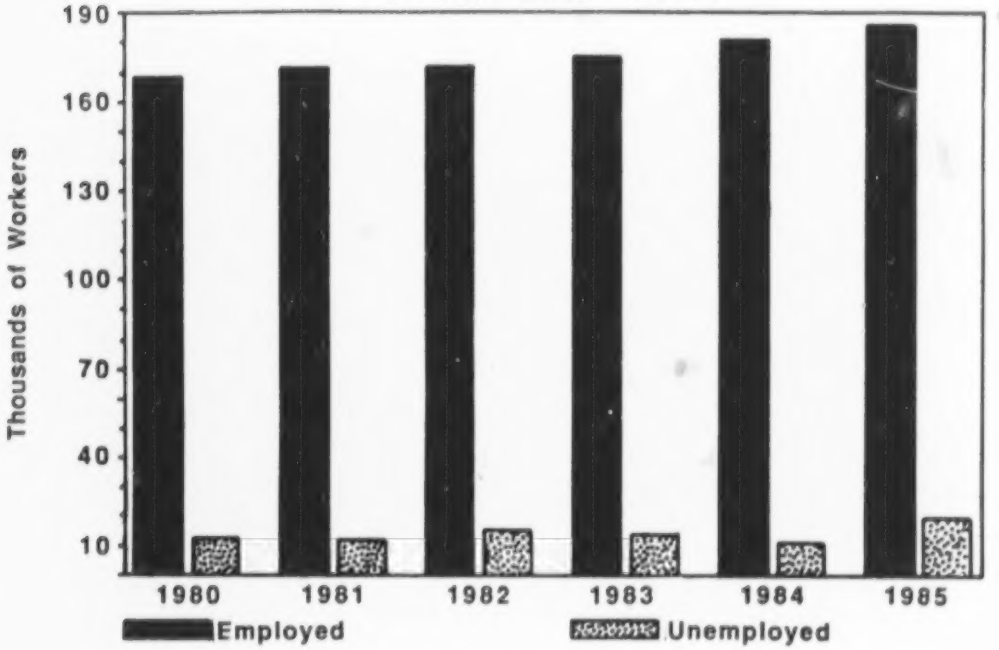
Athens Retail Trade Area, 1982

	Number of Stores	Sales
Central business district	101	$29,303,000
Georgia Square Mall	93	$66,039,000
MSA	1,140	

Source: U.S. Department of Commerce, *Census of Retail Trade*, 1982.

Figure 1

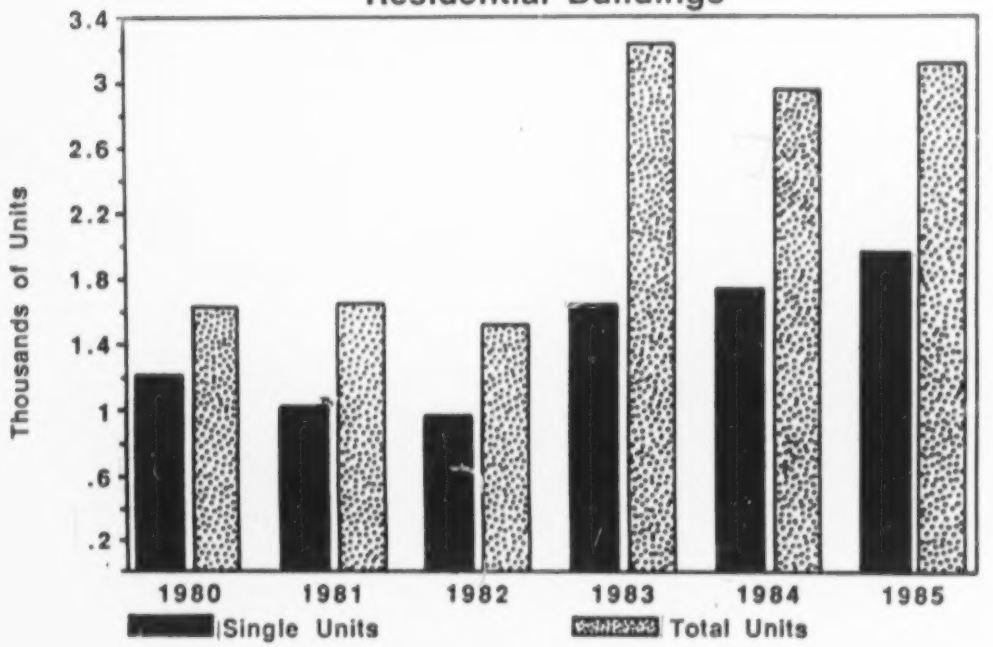
Civilian Labor Force



Source: Georgia Department of Labor, Labor Information Systems, July 1986.

Figure 2

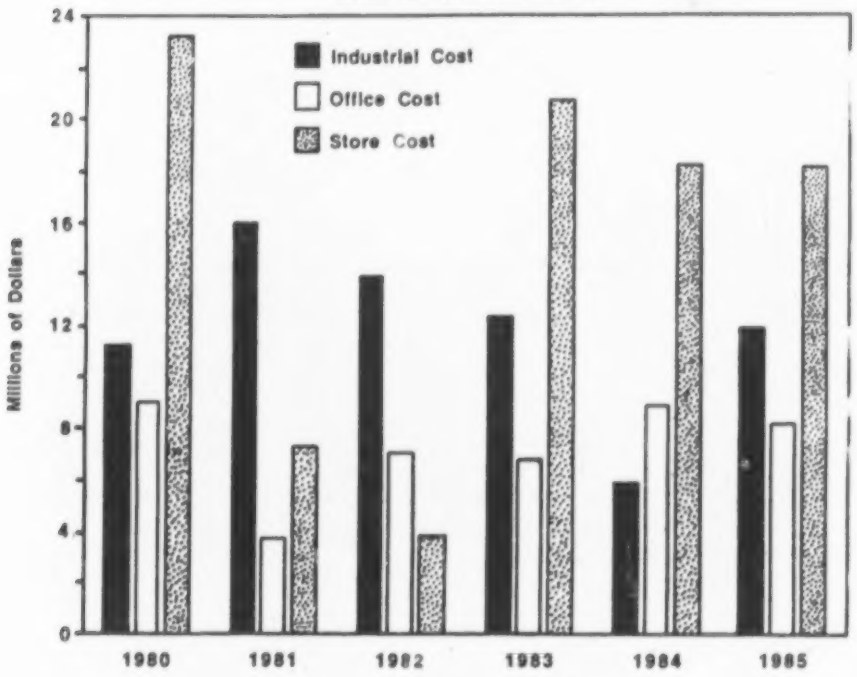
Residential Buildings



Source: U.S. Department of Commerce, Bureau of the Census

Figure 3

Cost of Construction



Source: U.S. Department of Commerce, Bureau of the Census

earlier. This is true especially during 1985 when the region's unemployment rate swelled to 9.9 percent and new residential construction starts simultaneously increased 5 percent. Part of this increase could be due to spatial growth of Atlanta toward the Northeast Piedmont Region. As a result, more Atlanta workers now live in this region and commute to work.

Nonresidential construction in the Northeast Piedmont is dominated by retail store construction (Figure 3). In the years 1980-1985, retail store construction averaged 50 percent of the total industrial, office and professional, and retail store construction in the region. Much of this would be accounted for by neighborhood and community shopping facilities since the only regional malls are in Athens, Atlanta, and Anderson, S.C.

Industrial construction declined considerably in 1981-1984 but it rebounded sharply in 1985, jumping from about $6 million in 1984 to $12 million in 1985. This increase probably is due to the growth of the lumber and wood products; stone, clay, and glass; and non-electrical machinery industries. While the increase in industrial construction may ease the high rate of unemployment experienced in this region in 1985, it would have to be fairly significant to offset the decline associated with the apparel and textile industries.

Recent Real Estate Developments

Lina Echeverri

The number of new housing units authorized by permit represents an important part of the construction sector. Since permits generally are good for a year, the number of new housing units authorized by permit does not tell exactly how many units are under construction, but it does show definite seasonal patterns. Demand for housing permits authorized in Georgia climbs during the first half of the year, and peaks in June and July. In August it starts to slow down, usually declining until December, when the real estate market is very slow.

Overall, preliminary data show that permits for 76,342 housing units were authorized in Georgia in 1986, compared to 74,985 units authorized in 1985, representing a gain of 1.8 percent. The Atlanta metropolitan area accounts for most of the increase, registering a 5.2 percent jump over its level in 1985. The other metropolitan areas also contributed to the increase in the total, although to a lesser extent.

For metropolitan areas other than Atlanta, the pattern of growth during 1986 reversed that of 1985. Those metropolitan areas that contributed to an overall increase in 1985 showed a strong decrease in housing units authorized during 1986. The Athens, Augusta, Columbus, and Savannah MSAs slid 13.3, 12.7, 20.1, and 14.3 percent, respectively. Large overall increases in the remaining metropolitan areas helped to offset this negative effect. In the Albany, Chattanooga, and Macon MSAs the number of housing units authorized climbed by 12.2, 24.2, and 18.8 percent, respectively.

To compare the number of permits authorized from one

Table 1

Private Housing Units Authorized

	Albany	Athens	Atlanta	Augusta	Chattanooga	Columbus	Macon	Savannah	State
1980	NA	NA	22,058	1,667	155	576	1,145	1,152	34,837
1981	445	713	18,596	1,185	149	382	840	1,245	29,996
1982	496	780	24,015	2,258	145	560	1,255	1,839	38,737
1983	637	1,937	44,460	3,578	210	1,499	2,662	2,381	65,910
I	116	268	9,252	527	40	113	483	567	14,352
II	131	765	13,096	1,173	61	735	935	385	20,290
III	251	493	11,435	672	44	366	526	388	17,186
IV	118	258	9,695	548	63	152	703	821	15,131
1984	791	1,322	50,131	4,265	269	1,122	2,083	1,754	70,264
I	152	205	12,334	723	75	364	552	357	17,418
II	217	612	14,981	872	46	256	452	395	21,396
III	151	256	12,421	849	127	183	593	316	17,827
IV	85	139	9,207	753	108	236	491	271	13,724
1985	580	1,571	50,568	4,460	215	1,329	1,760	2,761	74,985
I	89	289	10,740	1,470	118	243	396	696	16,279
II	107	574	13,879	789	65	250	504	403	19,674
III	128	282	20,981	1,490	42	282	312	1,078	20,981
IV	93	393	13,396	657	30	554	376	374	17,387
1986	651	1,362	53,187	3,892	267	1,062	2,091	2,367	76,342
I	340	396	12,873	1,335	39	280	512	655	19,129
II	111	313	16,092	965	132	284	625	806	22,601
III	153	250	13,362	739	46	325	529	419	19,000
IV	47	403	10,860	853	50	173	425	487	15,612
% CHANGE ON AN ANNUAL BASIS									
1985-86	12.2	-13.3	5.2	-12.7	24.2	-20.1	18.8	-14.3	1.8
I	282.0	37.0	19.9	-9.2	-66.9	15.2	29.3	-5.9	17.5
II	3.7	-45.5	15.9	22.3	103.1	13.6	24.0	100.0	14.9
III	19.5	-11.3	-36.3	-50.4	9.5	15.2	69.6	-61.1	-9.4
IV	-49.5	2.5	-18.9	29.8	66.7	-68.8	13.0	30.2	-10.2

NOTE: Quarterly totals may not add to annual totals because of monthly revisions.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Housing Units Authorized by Permit Issuing Places*, and unpublished reports.

Table 2

Value of Private Housing Units Authorized
(Thousands of Dollars)

	Albany	Athens	Atlanta	Augusta	Chattanooga	Columbus	Macon	Savannah	State
1980	NA	NA	746,102	52,073	5,057	19,573	38,811	46,572	1,166,333
1981	12,492	20,071	648,789	39,378	4,233	14,845	30,364	51,765	1,018,380
1982	12,562	23,096	931,925	65,415	4,551	89,748	44,690	66,530	1,387,196
1983	18,279	56,613	1,625,171	120,311	6,048	50,961	86,300	73,252	2,367,445
I	2,941	8,059	343,988	17,123	1,194	5,160	17,415	22,442	510,975
II	3,990	20,748	469,421	34,796	1,471	23,626	29,269	22,311	708,850
III	7,371	13,334	445,544	22,105	1,744	11,996	18,175	25,137	636,767
IV	3,607	9,436	359,752	18,390	1,424	6,415	21,712	33,753	548,849
1984	24,862	46,503	2,151,672	149,394	7,347	40,978	83,734	97,505	2,896,777
I	8,038	8,869	518,216	26,608	2,361	13,430	21,704	23,837	707,619
II	6,578	18,619	604,278	28,833	1,651	9,180	21,670	33,089	838,633
III	3,842	8,543	516,477	27,743	1,127	6,899	19,455	18,205	694,190
IV	2,982	6,716	415,467	24,901	2,358	8,502	20,214	18,208	587,720
1985	22,062	63,381	2,289,203	152,809	7,101	49,089	77,661	136,264	3,245,941
I	4,028	11,702	480,295	43,251	1,036	9,095	19,574	39,455	684,250
II	4,170	22,072	634,407	33,859	2,111	9,998	20,461	25,928	877,146
III	5,126	12,972	881,761	49,141	1,583	13,641	17,815	44,288	881,757
IV	4,305	14,858	595,306	26,508	1,193	16,353	15,862	24,396	744,493
1986	25,128	61,901	2,704,778	187,267	7,897	47,502	97,217	149,019	3,783,179
I	9,524	17,682	646,224	57,490	1,594	11,455	23,599	34,419	907,800
II	5,717	17,921	838,033	52,899	3,551	12,580	29,374	51,463	1,158,014
III	7,041	12,527	634,860	42,599	1,599	12,618	24,077	33,097	912,090
IV	2,846	13,771	585,661	34,579	1,153	10,849	20,167	30,040	805,275
% CHANGE ON AN ANNUAL BASIS									
1985-86	11.7	-4.2	15.9	20.2	9.1	-5.1	22.8	7.3	14.4
I	132.0	48.2	32.0	30.4	51.0	23.6	18.3	-14.4	30.2
II	34.5	-20.3	29.6	53.3	65.0	23.4	40.9	94.7	29.5
III	34.8	-5.3	-29.4	-14.9	-0.9	-9.2	32.6	-26.7	1.5
IV	-35.1	-9.1	-3.5	28.0	-5.2	-34.9	24.7	20.8	6.1

NOTE: Quarterly totals may not add to annual totals because of monthly revisions.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Housing Units Authorized by Permit Issuing Places*, and unpublished reports.

Table 3

Existing Home Sales in Georgia for Single Family, Apartment Condos, & Co-ops
(000s of units)

Annual Totals		Quarterly*		Quarterly*		Quarterly*		Quarterly*	
Year	Units	1983	Units	1984	Units	1985	Units	1986	Units
1981	54.6	I	47.8	I	75.3	I	72.1	I	77.3
1982	35.8	II	48.3	II	62.1	II	62.0	II	69.6
1983	51.0	III	51.1	III	45.8	III	55.8	III	74.4
1984	60.1	IV	57.1	IV	58.5	IV	70.2	IV	
1985	65.1								

* Quarterly figures are seasonally adjusted annual rates.

SOURCE: National Association of Realtors, *Existing Home Sales*.

Table 4

Mobile Home Shipments to Georgia

Annual Totals		Quarterly Total		Quarterly Total		Quarterly Total	
Year	Number	1984	Number	1985	Number	1986	Number
1981	11,172	I	4,174	I	4,995	I	4,661
1982	12,655	II	4,695	II	5,640	II	4,536
1983	16,268	III	4,621	III	5,180		
1984	18,486	IV	4,425	IV	4,384		
1985	20,199						

NOTE: Quarterly totals may not add to annual totals because of revisions in monthly data.

SOURCE: National Conference of States on Building Codes and Standards. Published in U.S. Department of Commerce, Bureau of the Census, *Housing Units Authorized by Permit Issuing Places.*

quarter to the next, the data must be seasonally adjusted, that is, multiplied by weights determined by the season. Because appropriate adjusting factors were not available, the percentage changes given in Table 1 are based on changes from the same quarter in 1985, thus minimizing seasonal differences.

The Bureau of the Census data also allow the tracking of the value of housing permits authorized. Overall, the value of new private housing units authorized in the state escalated 14.4 percent over its 1985 level. In most of Georgia's metropolitan areas, the value of new housing units increased substantially, compared to levels in 1985. The exceptions were Athens, down 4.2 percent, and Columbus, off 5.1 percent. Atlanta showed a rise in the value of housing units authorized of 15.9 percent. The remaining metropolitan areas increased in a range between 7.3 percent and 22.8 percent (see Table 2).*

According to data released by the Federal Home Loan Bank of Atlanta, in 1986, the average value of a new single family unit in the Atlanta MSA was $119,800, while in 1985 it was $106,700. The difference amounts to a 12.2 percent increase.

Other data on sales of existing homes, released by the National Association of Realtors, and mobile home shipments, published by the Bureau of the Census, help show total housing activity in Georgia. For the state as a whole, the number of existing housing units sold showed records for each of the first three quarters of 1986 (see Table 3). An average of the data for these quarters gives a total of 73,800 units sold during the year, a 13.4 percent increase over 1985. The increase continues a trend begun in 1982.

Table 4 shows that mobile home shipments to the state decreased during the first half of 1986 and were lower for each of the first two quarters, compared to levels in 1985. Shipments dropped by 6.7 and 19.6 percent during the first and second quarters, respectively. During the six months, 9,197 mobile homes were shipped to Georgia, 13.5 percent below the total for the same period in 1985.

Average mortgage rates for Atlanta continue to decline. After climbing to February's peak of about 10.3 percent, they started to decrease, declining to about 9 percent at the end of the year. The continuing slide in mortgage rates creates incentives for people to invest in real estate and is one factor to consider when analyzing the market.

Even though mortgage rates declined during the year, expectations about the effects of tax reform plus an excess supply of multi-family buildings strongly affected the issuance of new housing permits. (See "The Impact of the 1986 Tax Reform on Real Estate" by Hugh O. Nourse in the previous issue of this magazine.) These two variables offset some of the incentives for developers to build new units, and also curtailed the pace in the real estate market during 1986.

* The percentage changes in the value of housing units authorized by permit are calculated in real or inflation-adjusted terms to give a more realistic perspective of what happened in the real estate market during 1986. The annual and quarterly data posted in Table 2 are in nominal or unadjusted terms.

Lina Echeverri is a graduate student in economics at the University of Georgia.

Taxable Sales in Georgia, 1985-1986, by Industry and County ($000)

Industry	Total 1985	Total 1986	Annual Percent Change 1985-1986
Food	12,013,093	12,777,466	6.4
Apparel	1,356,101	1,512,312	11.5
Genl. Merch.	7,426,194	7,657,940	3.1
Automotive	10,363,863	10,164,723	-1.9
Furniture	3,317,377	3,456,508	4.2
Miscellaneous	3,255,142	3,818,839	17.3
County			
Appling	107,117	106,880	- .2
Atkinson	25,198	24,453	-3.0
Bacon	94,939	100,439	5.8
Baker	11,198	11,609	3.7
Baldwin	243,933	250,205	2.6
Banks	45,168	44,791	- .8
Barrow	199,286	214,633	7.7
Bartow	361,694	382,996	5.9
Ben Hill	117,133	118,758	1.4
Berrien	94,433	89,658	-5.1
Bibb	1,503,166	1,553,430	3.3
Bleckley	40,369	38,520	-4.6
Brantley	37,285	42,067	12.8
Brooks	54,653	47,589	-12.9
Bryan	89,451	87,127	-2.6
Bulloch	265,412	262,939	-.9
Burke	99,045	99,283	.2
Butts	119,009	122,625	3.0
Calhoun	20,449	18,762	-8.2
Camden	120,104	129,202	7.6
Candler	65,205	64,498	-1.1
Carroll	519,519	547,015	5.3
Catoosa	279,819	293,748	5.0
Charlton	36,483	40,136	10.0
Chatham	2,590,447	2,740,294	5.8
Chattahoochee	15,637	12,396	-20.7
Chattooga	136,217	133,797	-1.8
Cherokee	352,647	389,651	10.5
Clarke	827,614	852,355	3.0
Clay	9,462	8,576	-9.4
Clayton	1,648,131	1,862,322	13.0
Clinch	45,165	40,821	-9.6
Cobb	4,532,912	4,937,659	8.9
Coffee	220,914	235,225	6.5
Colquitt	292,938	296,834	1.3
Columbia	196,208	224,018	14.2
Cook	76,789	79,652	3.7
Coweta	332,165	354,702	6.8
Crawford	15,830	16,044	1.4
Crisp	207,051	200,456	-3.2

Industry	Total 1985	Total 1986	Annual Percent Change 1985-1986
Total Retail	37,731,770	39,387,787	4.4
Lumber, Const.	4,305,218	4,636,497	7.7
Services	4,023,004	4,529,055	12.6
Manufacturing	3,695,983	3,924,845	6.2
Utilities	6,993,358	7,582,287	8.4
County			
Dade	60,257	63,121	4.8
Dawson	29,541	31,119	5.3
Decatur	219,636	218,187	- .7
DeKalb	6,295,570	6,653,902	5.7
Dodge	77,293	77,046	- .3
Dooly	74,147	72,684	-2.0
Dougherty	1,185,270	1,159,908	-2.1
Douglas	486,277	526,248	8.2
Early	139,275	150,200	7.8
Echols	2,053	2,584	25.9
Effingham	79,732	121,423	52.3
Elbert	135,681	136,677	.7
Emanuel	113,865	116,448	2.3
Evans	90,292	94,515	4.7
Fannin	99,420	114,970	15.6
Fayette	218,207	286,576	31.3
Floyd	703,377	730,017	3.8
Forsyth	303,319	356,422	17.5
Franklin	136,191	143,407	5.3
Fulton	9,356,326	9,709,378	3.8
Gilmer	96,974	104,291	7.5
Glascock	3,587	4,096	14.2
Glynn	748,743	733,670	-2.0
Gordon	233,299	246,318	5.6
Grady	114,179	121,759	6.6
Greene	80,226	73,147	-2.6
Gwinnett	3,125,316	3,533,083	13.0
Habersham	243,506	266,059	9.3
Hall	934,918	978,974	4.7
Hancock	25,928	25,715	- .8
Haralson	125,444	121,037	-3.5
Harris	95,103	99,363	4.5
Hart	133,383	135,227	1.4
Heard	15,831	16,782	6.0
Henry	256,780	287,553	12.0
Houston	547,549	624,521	14.1
Irwin	40,826	41,810	2.4
Jackson	270,371	310,451	14.8
Jasper	34,889	37,003	6.1
Jeff Davis	119,524	122,432	2.4

Continued

Taxable Sales in Georgia, 1985-1986,
by Industry and County (continued)
($000)

County	Total 1985	Total 1986	Annual Percent Change 1985-1986	County	Total 1985	Total 1986	Annual Percent Change 1985-1986
Jefferson	129,202	138,281	7.0	Richmond	1,970,043	2,022,248	2.6
Jenkins	48,232	45,977	-4.7	Rockdale	397,988	459,074	15.3
Johnson	31,124	23,679	-23.9	Schley	14,163	16,498	16.5
Jones	71,390	81,321	13.9	Screven	98,415	92,711	-5.8
Lamar	67,143	68,067	1.4	Seminole	76,113	76,530	.5
Lanier	28,499	29,293	2.8	Spalding	387,831	440,137	13.5
Laurens	324,865	364,138	12.1	Stephens	196,927	203,720	3.4
Lee	20,854	19,307	-7.4	Stewart	23,021	21,785	-5.4
Liberty	211,914	208,215	-1.7	Sumter	200,962	205,826	2.4
Lincoln	23,893	24,877	4.1	Talbot	20,367	20,376	.0
Long	8,237	8,264	.3	Taliaferro	5,358	4,984	-7.0
Lowndes	709,853	729,703	2.8	Tattnall	100,105	99,228	- .9
Lumpkin	79,831	80,694	1.1	Taylor	124,710	135,941	9.0
Macon	86,906	79,676	-8.3	Telfair	56,048	52,827	-5.7
Madison	41,812	41,618	- .5	Terrell	47,584	48,669	2.3
Marion	20,050	19,651	-2.0	Thomas	337,605	358,153	6.1
McDuffie	135,718	140,107	3.2	Tift	289,996	303,757	4.7
McIntosh	45,505	50,772	11.6	Toombs	198,839	210,597	5.9
Meriwether	136,074	138,360	1.7	Towns	51,990	55,602	6.9
Miller	34,873	34,359	-1.5	Treutlen	18,566	20,428	10.0
Mitchell	128,838	125,342	-2.7	Troup	510,877	538,033	5.3
Monroe	107,962	126,923	17.6	Turner	45,010	42,493	-5.6
Montgomery	20,534	13,411	-10.3	Twiggs	20,251	18,259	-9.8
Morgan	109,000	116,555	6.9	Union	64,379	71,157	10.5
Murray	116,603	140,326	20.3	Upson	150,026	151,565	1.0
Muscogee	1,637,916	1,712,901	4.6	Walker	273,671	306,340	11.9
Newton	232,197	254,118	9.4	Walton	252,632	274,305	8.6
Oconee	61,051	57,343	-6.1	Ware	301,333	294,774	-2.2
Oglethorpe	34,358	34,401	.1	Warren	26,863	25,929	-3.5
Paulding	157,839	184,302	16.8	Washington	137,669	144,500	5.0
Peach	108,899	112,147	3.0	Wayne	212,319	209,774	-1.2
Pickens	168,928	180,193	6.7	Webster	4,356	4,373	.4
Pierce	58,259	63,261	8.6	Wheeler	17,167	18,319	6.7
Pike	22,373	21,675	-3.1	White	96,680	115,332	19.3
Polk	195,710	194,572	- .6	Whitfield	999,115	1,094,529	9.5
Pulaski	45,340	41,462	-8.6	Wilcox	19,529	18,001	-7.8
Putnam	66,290	69,525	4.9	Wilkes	113,704	109,040	-4.1
Quitman	7,295	7,340	.6	Wilkinson	40,949	47,771	16.7
Rabun	82,463	85,166	3.3	Worth	81,265	82,032	.9
Randolph	44,775	43,244	-3.4	Georgia	56,749,334	60,060,470	5.8

Source: Derived by the Division of Research, College of Business Administration, University of Georgia, from data of the Sales and Use Tax System, Georgia Department of Revenue. Sales include the value of all taxable items, as reported by firms selling or acquiring them, plus penalties and interest collected.

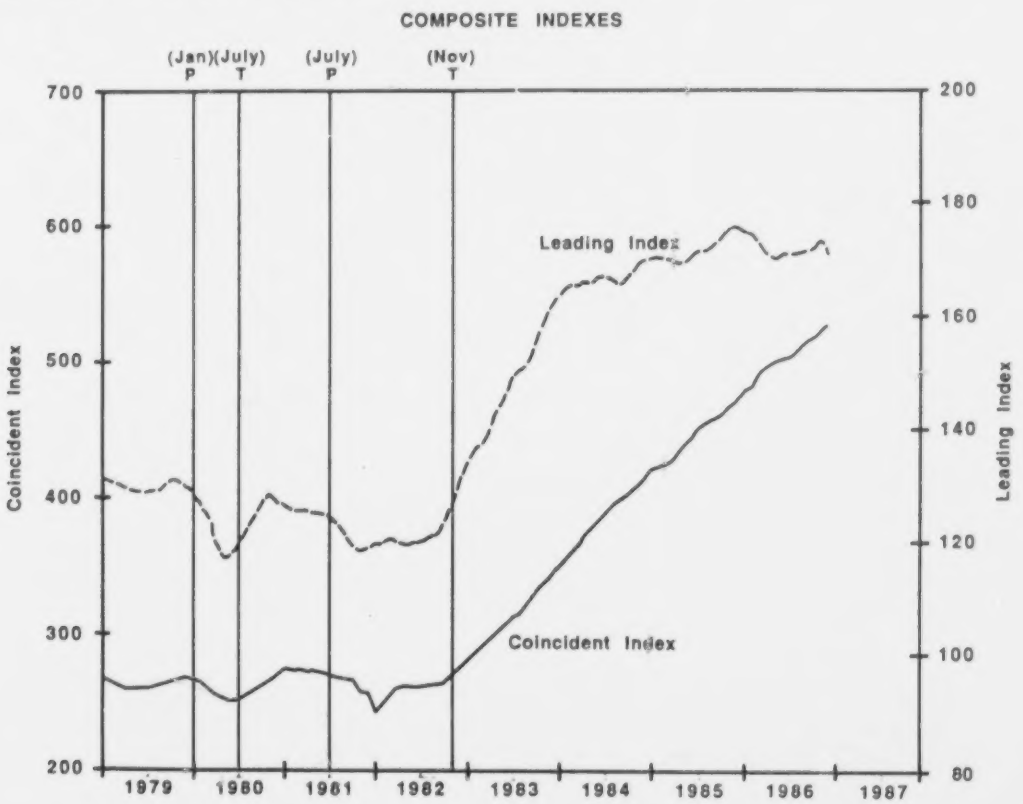
Composite Indexes of Leading and Coincident Georgia Economic Indicators

Overall, the coincident indicator gained moderately during the last two months of 1986, rising .9 and .8 percent, respectively, during November and December. Its seasonally adjusted component series was mixed. Real retail sales increased 4.8 percent in November, but declined 2.3 percent in December, while manufacturing weekly earnings was relatively stable. The latter declined only .2 percent in November and had a .1 percent rebound in December. Nonagricultural employment continued to rise slowly. In November and December it increased .4 and .2 percent, respectively.

On an annual basis, the coincident indicator and its component series was higher than levels of the last two months of 1985. Overall, during November and December, the index increased 12.1 and 12 percent, respectively, over the previous year. Seasonally adjusted real retail sales were 3.9 and 2.7 percent higher in November and December over year-end 1985. Real manufacturing earnings rose .4 percent in November and .6 percent in December, while nonagricultural employment was 4.1 percent higher in both months, compared to its levels in November and December of 1985.

Overall, the leading indicator had a mixed performance during the last two months of 1986. In November it increased .8 percent, followed by a decline of 1.4 percent in December. The changes resulted from offsetting performances of the leading indicator's components, which showed opposite patterns in November and December. Seasonally adjusted initial unemployment claims dropped by 8.3 percent in November; the improvement was followed by an increase of 36.4 percent in claims during December. Seasonally adjusted new housing permits continued its volatile swings, decreasing 13.1 percent in November, but rebounding by 2.5 percent in December. The help wanted advertising index for Atlanta rose 4.1 percent in November and declined 6.4 percent in December.

Year-over-year, most of these series showed a downward trend. Overall, the leading indicator was 1.1 and 2.8 percent below its level in November and December 1985. In November, seasonally adjusted initial unemployment claims were 6.9 percent below those recorded in November 1985; December claims rose by 21.3 percentage points above the corresponding 1985 level. Seasonally adjusted new housing permits dropped 15.2 percent in November, and 18.8 percent in December, below their levels for the same months in 1985. The Atlanta help wanted advertising index showed a similar performance, sliding 4.8 and 9 percent in November and December compared to 1985 levels.



GEORGIA BUSINESS STATISTICS

SERIES	DEC 1986	NOV 1986	OCT 1986	DEC 1985
Georgia Leading Indicators Index[1] (1969=100)	170.91	173.30	171.87	175.73
Georgia Coincident Indicators Index[2] (1969=100)	527.63	523.63	518.90	471.07
Nonagricultural Employment[2] (thousands)	2746.5	2735.3	2727.9	2638.9
Manufacturing Employment[2] (thousands)	567.8	567.4	567.8	567.9
Average Weekly Earnings, Manufacturing[2] (dollars)	349.86	344.02	341.53	346.53
Help Wanted Advertising, Atlanta Index[3] (1967=100)	263	281	270	289
Taxable Retail Sales[4] ($ millions)	4010.5	3491.3	3152.7	3897.2
Building Permits[5]				
Residential Housing Units, Private (thousands)	4.8	4.6	6.2	6.0
Value of Residential Housing ($ thousands)	254325	211436	339514	242527
Value of Nonresidential Construction ($ thousands)	279095	190353[P]	204732[P]	191198
Industrial Buildings	31937	23555	21034	18089
Office, Bank and Other Professional Buildings	110246	62370	37563	81495
Stores and Other Mercantile Buildings	40072[P]	39390	57897	23826
Other	96840	65038	88238	67788
Consumer Price Index[6] (CPI-U, all items)				
South U.S. (December 1977 = 100)	177.9	--	177.5	176.3
South/Population more than 1,250,000	177.9	--	177.6	176.5
South/Population 385,000 - 1,250,000	179.9	--	180.0	178.0
South/Population 75,000 - 385,000	176.4	--	175.8	175.3
South/Population 2,500 - 75,000	176.6	--	175.4	174.5
Atlanta (1967=100)	342.2	--	339.9	335.3
Prices Received by Farmers, Georgia Index[7] (1977=100)	124	130[r]	131[r]	120[r]
	1986:III	**1986:II**	**1986:I**	**1985:III**
Total Personal Income[8] ($ millions)	81416	80168	79309	75625

---

[1]Georgia Economic Forecasting Project, Division of Research, College of Business Administration, University of Georgia. Initial monthly values subject to revision.

[2]Labor Information Systems, Georgia Department of Labor. Data revised to 1986 benchmarks.

[3]Series published by The Conference Board, Inc.

[4]Derived by the Division of Research, College of Business Administration, University of Georgia, from data of the Sales and Use Tax System, Georgia Department of Revenue.

[5]U.S. Department of Commerce, Bureau of the Census.

[6]U.S. Department of Labor, Bureau of Labor Statistics, Southeastern Regional Office.

[7]Georgia Department of Agriculture, Georgia Crop Reporting Service.

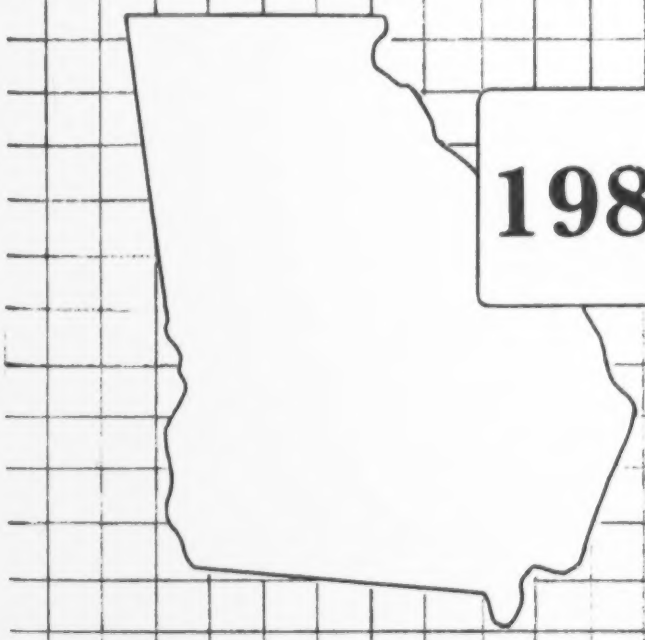
[8]U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System.

[P] Preliminary; imputation greater than 25 percent.

[r] Revised

GEORGIA STATISTICAL

ABSTRACT



1986-87

Available for $22.50 (plus 4% tax) only from the Division of Research

Division of Research
College of Business Administration
University of Georgia
Athens, Georgia 30602

Second Class Postage Paid
Athens, Georgia

20814 CI224 6842
CONGRESSIONAL INFO SERVICE
STATISTICAL REF. INDEX
4520 EAST-WEST HIGHWAY
BETHESDA, MD 20814

7/17/87 LL6730-2

GEORGIA BUSINESS AND ECONOMIC CONDITIONS

May-June 1987
Volume 47, number 3

Medical Care for Georgia's Elderly: Toward Access or Rationing?

Frank J. Thompson and Jerome S. Legge

The growth in the number and proportion of elderly citizens in Georgia will heighten the need and demand for medical care. This development will increasingly present society and government with the thorny problem of balancing access, quality, and cost in the medical arena. Strong public sentiment exists that citizens, and perhaps the elderly in particular, deserve access to quality medical care. Any flat endorsement of this goal, however, begs the painful issues of costs.

As the population ages, government officials and others will face the nagging question of how much should be spent on medical care relative to other valued goods and services such as education, the environment, and improved highways. The question, "who should pay for medical services?" also will loom large. Should those in the work force be taxed more to cover the costs of medical care for the elderly? Should older people, themselves, pay more? Should some of the costs be shifted to medical providers via attempts to foster greater efficiency (e.g., less payment for the same service)?

Given the magnitude of the cost problem, the possibility exists that society will find formal and informal means to limit, or ration, medical service to elderly Georgians. Several policies might serve this purpose. Government, for instance, might take steps to restrict the number of medical providers through such regulatory measures as certificates of need. It might devise payment systems which encourage hospitals and doctors to do less for the elderly, or older citizens may have to pay more of their medical bills out of their own pockets, thereby discouraging many from seeking care. No one can predict with certainty the path Georgia will follow, but informed speculation is possible.

This article analyzes how the politics of Medicare could prove pivotal in shaping health care for the elderly in Georgia and across the nation. Before considering possible scenarios, however, the health care needs of older people will be sketched in more detail. The reader should note that as the state's population ages, those providing custodial care in nursing homes will face enormous challenges. Unfortunately, space does not permit treatment of these challenges here.

HEALTH CARE NEEDS AND UTILIZATION

The percentage of Georgia's elderly in the 65-74 age bracket (the younger old) is expected to grow by 11 percent between 1985 and 2000; the growth rate for the 75-and-over bracket (the older old) is projected to be 69 percent for the same period. Georgia's older old will number only slightly fewer than the younger old in the year 2000. What diseases afflict these groups and how frequently will they use the medical care system? Allowing that changes in medical technology and a host of other factors could alter trends, data from national surveys cast some light on the question.

Table 1 shows national disease rates for different age cohorts for the three major killers--heart disease, malignant neoplasms (cancer), and cerebrovascular diseases (stroke). As is evident, the death rates from these afflictions rise dramatically (especially for heart and cerebrovascular disease) among those 75 and over. The final episodes which accompany death from these sources often rank extremely high in the intensity and cost of the hospital service provided. As a greater percentage of Georgia's population reaches 75, the demands on medical providers for treatment of these diseases will rise.

Table 2 reinforces this impression by examining various indicators of medical care utilization. Unfortunately, the data do not permit comparisons between the 65-74 and the 75-and-over brackets. But they do indicate that the elderly have higher rates of physician visits per year, hospital discharges, days of hospital care,

and hospital stays than the entire population. The hospital discharge rate for the elderly is more than double that for the entire population; the elderly spend over three times as many days in hospitals (per 1,000 population) as all citizens. While the data are derived from national surveys, little reason exists to believe that Georgia's elderly markedly differ in disease patterns or health care utilization.

Will Georgia have adequate numbers of different types of medical providers to meet the health care needs of the elderly? While considerable uncertainty shrouds the answer, a relatively sanguine assessment seems appropriate. As of the mid-1980s, Georgia ranked somewhat below the rest of the country in physicians per capita (see Table 3). This ratio had increased by 34 percent since 1975, however. Moreover, experts project the number of physicians in the nation to grow substantially in the coming decade, prompting some analysts to worry about a "physician glut." As a result of this national trend, physicians per capita in Georgia probably will continue to rise. The number of community hospital beds in Georgia per capita exceeded the number in the entire nation. The occupancy rate was slightly less than that for the country as a whole. While the general supply of physicians and hospital beds seems likely to be adequate, shortages may occur in other areas (for instance, nurses).

In addition, the geographic distribution of providers may create problems of access for certain of the elderly. Not surprisingly, physicians tend to locate in the metropolitan areas of the state. In the mid-1980s, nine counties in rural Georgia did not have a single doctor. Similarly, individuals in rural areas often need to travel greater distances to hospitals in order to receive care. While geographic factors will continue to affect access to medical services, however, the more critical variables in any rationing of health care probably will be financial. Will the elderly have adequate insurance coverage to persuade medical providers to deliver care to them? The answer to this question primarily revolves around the politics of Medicare over the next decade.

GEORGIA BUSINESS AND ECONOMIC CONDITIONS

May-June1987
Volume 47, number 3

DIVISION OF RESEARCH

Albert W. Niemi, Jr.
Dean of the College
Director of Research

Phillip A. Cartwright
Director, Economic Forecasting

Lorena M. Akioka
Editor

Suzanne A. Lindsay
Research Coordinator

GEORGIA BUSINESS AND ECONOMIC CONDITIONS (ISSN 0297-3857) is published bimonthly by the Division of Research, College of Business Administration, The University of Georgia, as a service to the business and academic communities. Signed articles reflect the author's opinion but not necessarily those of the Division of Research, College of Business, or The University of Georgia. This publication is sent free of charge upon request.

Manuscripts and letters to the Editor should be sent directly to us. **Postmaster** send address changes to: Division of Research, College of Business Administration, The University of Georgia, Athens, GA 30602

Second class postage paid at Athens, Georgia

THE POLITICS OF MEDICARE

Medicare is the nation's primary health insurance program for the elderly. Approved with other Great Society reforms in 1965, Medicare pays hospital bills for older people under Part A of the program and physician fees under Part B. To obtain the insurance coverage of Part B (called Supplementary Medical Insurance), the elderly must enroll and pay a monthly premium. Aside from this premium, older citizens share in the costs of Parts A and B through deductibles and co-payments. For instance, a Medicare recipient pays an amount generally equivalent to the cost of the first day of hospital care before Medicare coverage for his or her inpatient care begins. Those enrolled in Part B remain responsible for at least 20 percent of their physician charges.

Before we continue, it is important to distinguish Medicare from Medicaid. Unlike Medicare, which the federal government administers, Medicaid is essentially a grant program to the states. Under Medicaid, Georgia receives approximately two dollars from Washington for every one it spends. Medicaid provides health care for those on welfare and certain other medically needy segments of society. In the case of the elderly poor, the Georgia Medicaid program pays the premium required to enroll them in Part B of Medicare. The Medicaid program also pays substantial sums for nursing home care.

During the remainder of this decade and into the 1990s, the Medicare program will confront conflicting political pressures. The cluster of pressures with the greatest potential to ration care to the elderly emanates from soaring Medicare costs. Medicare ranks as the second largest domestic program of the federal government, trailing only Social Security in expenditures. Moreover, it is one of the most rapidly increasing items in the federal budget. As Table 4 indicates, the costs of the Medicare program have risen by nearly 1500 percent in the period from 1967 through 1985, growth which greatly exceeds the inflation rate for the same period. Health programs probably will count for the major portion of future growth in federal expenditures for the elderly.

These expenditure pressures would pose problems for federal policymakers in the best of fiscal times. In fact, of course, the pressures come at a time of massive federal budget deficits. As if this were not sufficient, demographic trends will heighten financial stress. The

Table 1

Death Rates From Heart Disease, Malignant Neoplasms and Cerebrovascular Disease Among the Elderly, 1984

Age Cohort	Heart Disease	Malignant Neoplasms	Cerebrovascular Disease
	(Per 100,000 Resident Population)		
65-74	1,103	835	177
75-84	2,749	1,272	626
85 and over	7,251	1,604	1,884
All ages	324	192	65

Source: U.S. Public Health Service, *Health, United States, 1986* (Washington: U.S. Government Printing Office, 1986), pp. 102, 104, 106.

Table 2

Selected Indicators of Medical Care Utilization Among the Elderly, 1985

Age Cohort	Number of Physician Visits Per Person Per Year	Hospital Discharges Per 1,000 Population	Days of Hospital Care Per 1,000 Population	Average Length In Days of Hospital Stays
65 and over	8.3	281.5	2,454.7	8.7
All ages	5.2	104.8	745.5	7.1

Source: U.S. Public Health Service, *Health, United States, 1986*, pp. 137, 142.

Table 3

Physicians, Community Hospital Beds, and Occupancy Rates in Georgia

	Non-Federal Per 10,000 Population, 1983	Community Hospital Beds Per 1,000 Civilian Population, 1984	Occupancy Rates in Community Hospitals, 1984
Georgia	15.4	4.5	67.1%
United States	19.9	4.3	69.3%

Source: U.S. Public Health Service, *Health, United States, 1968*, pp. 160, 172, 174.

Table 4

Medicare Expenditures by Type of Service, 1967-1985

	Amount in Billions			% Increase
	1967	1980	1985	1967-1985
Hospital care	$3.1	$25.9	$48.5	1465
Physician services	1.1	7.9	17.1	1455
Nursing home care	.2	.4	.6	200
Other health services (e.g., home health)	.1	1.5	4.4	4300
Total	$4.5	$35.7	$70.5	1467

Source: Daniel R. Waldo, Katherine R. Levit, and Helen Lazenby, "National Health Expenditures, 1985," *Health Care Financing Review* 8 (Fall, 1986):16-18; U.S. Public Health Service, *Health, United States, 1985*, p. 147.

Hospital Insurance Trust Fund depends on taxes remitted by current workers to finance care for Medicare beneficiaries under Part A. As of the mid-1980s, approximately four workers supported each individual insured by the program for hospital care. Demographers expect this ratio to decline so that slightly more than two workers will support each Medicare-eligible person by the middle of the next century. These trends have contributed to projections that the Hospital Insurance Trust Fund will be exhausted by the late 1990s. Relentless increases in the price of medical care fuel the cost pressure. Jumps in the medical care component of the Consumer Price Index consistently outpace boosts in the overall index. For instance, the medical care component of the index rose by 6.2 percent from 1984 to 1985 while the overall inflation rate was 3.6 percent.

It is these cost pressures that make a scenario of greater rationing of care to the elderly more plausible. In an effort to cut costs, federal policymakers could look for ways to trim the amount of services covered by Medicare. For example, they could seek to shift more costs of the Medicare program to the elderly via higher premiums, deductibles and co-payments. The more affluent elderly probably would not find these cost increases to be a significant barrier to health care. But these costs could deter the less affluent from seeking needed services. As of the mid-1980s approximately 40 percent of the elderly couples had an annual income of less than $14,500. Deductibles and co-payments can severely drain the income of this group. In addition to making the elderly pay more, federal policymakers might erect barriers to health care via cuts in payment rates to medical providers. Such cuts could increase the reluctance of hospitals to treat Medicare beneficiaries.

While cost pressures threaten to spawn the rationing of care, there are countervailing forces. First, public opinion polls reveal substantial support for increasing government expenditures on health care. Politicians who advocate the reduction of medical benefits to the elderly probably will win few kudos even in a time of massive federal deficits. Second, the elderly themselves rank among the most politically participative segments of the public. They are more likely to register and vote. They have the time to devote to political campaign work and have a definite stake in seeing Medicare benefits sustained and expanded. They belong to groups such as the American Association of Retired Persons which vigorously advocate their interests before Congress and administrative agencies. Though cutting Medicare may not be as much of a hot potato for politicians as attacking Social Security, it comes close.

Third, medical providers apply pressure on behalf of Medicare. Like the elderly, these providers are vigilant in promoting their policy interests. For instance, the PAC contributions of the American Medical Association to 1984 federal election campaigns ranked second among all such groups. Lobbyists for physicians and hospitals have consistently fought for more generous Medicare payment practices. Moreover, these health care providers have found ways to preserve profit levels in the face of Medicare regulations aimed at cutting costs. For example, hospital profits under the new prospective payment system based on Diagnosis Related Groups (DRGs) have been robust, averaging 15 percent in 1985. Georgia hospitals lagged behind this national mean but managed to achieve an average profit margin of 10 percent under the DRG system. While the Medicare prospective payment system helped produce a trend toward shorter hospital stays, it also has encouraged greater use of hospital outpatient services. In a similar vein, when Medicare froze payment rates to physicians in the mid-1980s, many doctors bolstered their income by having Medicare patients make more visits and by increasing the number and sophistication of tests and procedures used for diagnosis and treatment. Thus, most providers continue to have financial incentives to treat Medicare beneficiaries.

HEALTH CARE IN THE 1990s

What developments will the contending forces of cost control and program expansion yield in the next decade? If the activities of the 100th Congress are any indication, access and not rationing will be the dominant response to the medical needs of the elderly. In 1987, President Reagan endorsed a catastrophic health insurance plan offered by Otis R. Bowen, Secretary of the Department of Health and Human Services. Among other things, the Bowen plan proposes to expand Medicare coverage of hospital care to one year from its current 60 days of fully subsidized care. Congress probably will approve a modified version of this plan. Congress also seems likely to expand program support for home health care (medical services provided in the home). The current Medicare payment system basically pays hospitals a flat amount depending on the diagnosis of the patient's illness. Given diagnosis A, the hospital receives the same sum of money from Medicare regardless of the patient's length of stay and the intensity of services provided. The system thereby provides incentives for hospitals to discharge patients "quicker and sicker," and elevates the need for home health care. Such care is a small but rapidly growing segment of Medicare outlays (see Table 4). Efforts by Medicare officials to hold down reimbursement for home health care have promoted congressional criticism.

Expansion of Medicare benefits will fuel pressures to have elderly citizens help defray the added program costs. Older Americans directly pay about one-third of their personal health expenses. This proportion probably will not decline appreciably and could even grow. For instance, various proposals in Congress call for increasing the premium that Medicare patients pay for Supplementary Medical Insurance as a way of subsidizing expanded program benefits. To mute the negative impact of cost sharing on access to care for low-income elderly, however, policymakers may take one of several steps. One legislative proposal requires state Medicaid programs to pay all out-of-pocket hospital or outpatient costs for

the elderly with incomes below the poverty line. Another defines as taxable income the insurance value of subsidized Medicare benefits. This would require more affluent Medicare beneficiaries to pay higher taxes or premiums to compensate the government for the care they receive. Poorer beneficiaries would escape the pinch of these revenue measures.

The 1990s also will spawn sporadic initiatives to wring greater economy and efficiency from medical providers. One tempting alternative for government is to get doctors and hospitals to deliver the same amount and quality of services for less money. Several proposals seem likely to receive consideration. In the face of substantial hospital profits from the current Medicare prospective payment system based on DRGs, some analysts see a need to lower (or rebase) these rates. Others argue for reform in the way Medicare pays physicians by proposing that a version of the prospective payment system used for hospitals also be applied to doctors. Such a system would pay physicians according to a patient's diagnosis rather than for each service performed. Still other analysts argue for capitation, paying a fixed amount of money annually per Medicare beneficiary to a medical group which would deliver all benefits authorized under the Medicare program. This move would be consistent with steps already taken to encourage enrollment of Medicare beneficiaries in Health Maintenance Organizations.

These and related initiatives probably will induce marginal improvements in the efficiency of the medical sector. But progress seems likely to be measured in feet rather than miles. A political culture suspicious of proposals to centralize authority in Washington as well as the political clout of medical providers will stymie major change. The elderly also may limit their support for efficiency initiatives on grounds that the quest for cost savings could be carried too far and jeopardize their access to quality medical care. Given these forces, it appears unlikely that policy changes will radically undermine the Medicare profits of health care providers and deter them from treating the elderly.

In sum, barring major political or economic upheaval, we do not foresee a trend toward the rationing of health care to Georgia's older citizens. But continued access will carry a price tag. The affluent elderly and the state labor force will pay higher taxes and premiums to help cover the costs. Aside from these distributional issues, it deserves note that the state as a whole could get more than it gives to Medicare for health services. To the degree that the percentage of Georgia's population who are elderly exceeds the proportion in the nation as a whole, prospects improve that the state will realize a net positive flow of Medicare dollars. In other words, total Medicare payments to Georgia providers may well exceed the sum collected through taxes and premiums from Georgians to pay for Medicare.

Frank J. Thompson is head of the Department of Political Science and Jerome S. Legge is a public service assistant in political science at the University of Georgia.

UPCOMING IN THE NEXT ISSUE

In the next issue of *Georgia Business and Economic Conditions*, we will continue to examine problems affecting the elderly population of the state. Professor David Levine of the University of Georgia's School of Social Work will discuss some general ethical issues regarding needs of the elderly and suggest ways to ease growing pressures on the social welfare system.

Georgia's Elderly Citizens: An Overview

Suzanne A. Lindsay

Georgia's elderly citizens (those 65 years of age and older) are a rapidly-growing, diverse group. Although most detailed information concerning the elderly dates to the *1980 Census of Population and Housing*, more recent estimates indicate that they are increasingly important in the state's population.

HOW MANY NOW?

The U.S. Bureau of the Census estimates that as of July 1, 1985, Georgia had 594,000 persons aged 65 and over, an increase of 77,000 from the 1980 Census count. Almost 62 percent were aged 65 to 74; 38 percent were aged 75 and over. The number of persons in late middle age is almost as large; the survivors of the 499,000 persons aged 55 to 64 will move into the older age group by 1995 at the latest.

The 65 and over group is growing more rapidly in Georgia (14.9 percent over 1980-1985) than in the U.S. (11.7 percent). The state's proportion of older residents relative to its total population remains lower (9.9 percent) than that for the U.S. (12 percent). Table 1 indicates the relative growth in several older age groups; the number of Georgians aged 75 and over increased by 22.6 percent between 1980 and 1985.

HOW MANY BY 2000?

Provisional Census projections indicate that by the year 2000 (Table 2), Georgia will have 790,700 residents aged 65 and older. They will make up 11.8 percent of the population, and will be split almost evenly between the groups aged 65-74 and 75 and over. An additional 593,000 (8.8 percent) of the population will then be aged 55-64. As the accompanying graph shows, the number and relative proportion of the elderly will reflect increases that have continued for a century. In 1900, persons aged 65 and over made up about 3 percent of all Georgians; in 2000, the elderly are expected to represent 11.8 percent of all residents. The group will have increased almost twelve-fold in number, compared to the tripling of total population.

Table 1

Georgia Residents* Aged 55 and Older, 1980 and 1985,
With Relative Distribution and Percentage Changes,
U.S. and Georgia

	Georgia Population (000's)				Percent of Total Population			
			Percentage Change, 1980-1985		1980		1985	
Age Group	April 1, 1980	July 1, 1985	Georgia	U.S.	Georgia	U.S.	Georgia	U.S.
55-64	463	499	7.8	2.9	8.5	9.6	8.4	9.4
65 and over	517	594	14.9	11.7	9.5	11.3	9.9	12.0
65-74	331	366	10.6	9.1	6.1	6.9	6.1	7.1
75 and over	186	228	22.6	15.7	3.4	4.4	3.8	4.8
Total (All ages)	5,463	5,976	9.4	5.4	100.0	100.0	100.0	100.0

*Includes armed forces residing in the state.

Source: U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 998, State Population and Household Estimates to 1985, With Age and Components of Change, Tables 4, 5, 6, 7. Percentages for sub-groups computed by Division of Research.

Table 2

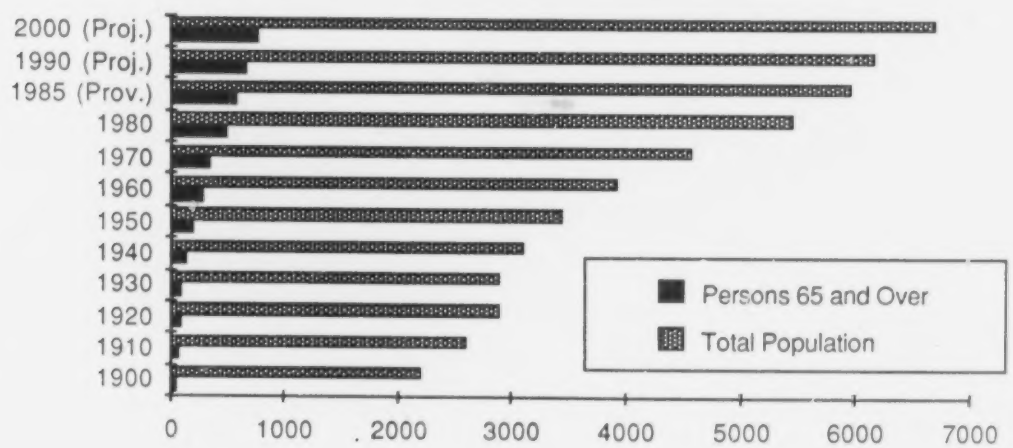
Projected Number and Proportion of Elderly Persons
in the Year 2000, Georgia

Age Group	Number (000s)	Percent of Total Population
55-64	593.0	8.8
65 and over	790.7	11.8
65-74	404.8	6.0
75 and over	385.9	5.8
Total (All ages)	6,708.2	100.0

Source: U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 937, Provisional Projections of the Population of States, by Age and Sex: 1980 to 2000, Table 4. Subtotals and percentages computed by the Division of Research.

Total Population and Persons Aged 65 and Over,
Georgia, 1900-1920

U.S. Census



Proj. = Projection
Prov. = Provisional

Table 3

Social and Economic Characteristics
of Elderly Georgians

Characteristic/Year	Percent of Georgia Residents Aged 65 and Over
Sex (1985)	
Male	37.6
Female	62.4
Race (1985)	
White	77.6
Black	22.4
Place of Birth (1980)	
U.S.	98.5
Georgia	76.9
Foreign	1.5
Language at Home (1980)	
Speak only English	98.3
Speak non-English language	1.7
Residence (1980 compared to 1975); Lived in -	
Same house, same county	79.2
Same county	11.5
Another county in state	5.1
Total, lived in Georgia, both 1975/1980	95.8
Years of School Completed (1980)	
None	3.5
1-4 years	15.5
5-8 years	36.3
1-4 years high school	30.3
1-4 years college and above	14.4
Marital Status (1980)	
Single	4.8
Married	50.6
Widowed	40.9
Divorced	3.7
Civilian Veterans (1980)	10.4

Characteristic/Year	Percent of Georgia Residents Aged 65 and Over
Living Arrangements (1980)	
Family householder	35.5
Living with spouse	19.2
Living with other relatives	10.7
Living with nonrelatives	1.0
Nonfamily householder	28.2
Inmate of institution, or other arrangement	5.4
Labor Force Status (1980)	
In labor force	13.0
Not in labor force	87.0
Poverty Level Status in 1979; Income -	
Below poverty level	25.7
Below 125 percent of poverty level	35.8
Median Income in 1979 (Persons 65 and over)	
Family householder	$10,050
Male unrelated individuals	$ 3,752
Female unrelated individuals	$ 3,666
OASDI Status (December, 1984)	
OASDI beneficiaries, aged 65 and over	514,190
Average monthly benefit, retired workers	$416.22
Per 1000 persons 65 and older, number:	
Receiving OASDI	891
Receiving Supplemental Security Income	144
Receiving both OASDI and SSI	109
Receiving OASDI, SSI, or both	926
Medicare Status (1984)	
Aged persons enrolled, Medicare Hospital Insurance	536,000
Medicare inpatient hospital admissions of aged	237,608
Skilled-nursing facility admissions of aged	7,494

Source: Based on Georgia Department of Human Resources and Georgia State Center Health Statistics, Georgia Vital Statistics Report, 1985; U.S. Department of Health and Human Services, Social Security Administration, Social Security Bulletin, Annual Statistical Supplement, 1986; U.S. Department of Commerce, Bureau of the Census, 1980 Census of Population. Percentages computed by Division of Research.

WHERE DO THE ELDERLY LIVE?

In 1980, 61.3 percent of residents aged 65 and over lived in urban areas, with over a third of that group in central urban areas, almost 29 percent in urban fringe areas, and the rest in smaller cities and towns. About 39 percent lived in rural areas, mostly outside the towns of 1,000-2,500 population that are also considered "rural". Older residents were slightly more likely (51 percent) to live in metropolitan statistical areas than outside them.

One recent study found that many counties in or near MSAs had lower than average percentages of persons aged 65 and over. Counties with high percentages of elderly residents were concentrated along Georgia's northern border, in a band extending from the South Carolina border into south-central Georgia, and in the southwest corner of the state. The ten counties with the highest proportion of elderly residents were all rural. In addition, the study found that counties with high numbers of elderly residents tended to have higher than average dependency ratios, which reflect the number of persons aged 65 and over per 100 persons of working age.

By 1985, the Georgia State Center for Health Statistics estimated that 52.2 percent of Georgians aged 65 and over lived in the 38 metropolitan counties, where they made up 8.5 percent of the total population. The remaining 47.8 percent lived in the 121 non-metropolitan counties, contributing 12.2 percent of their residents and continuing those areas' trend toward relatively higher concentrations of the elderly.

SOCIO-ECONOMIC CHARACTERISTICS

Table 3 summarizes some of the social and economic characteristics of Georgia's elderly residents. More detailed information, classified by age, race, and/or sex, reveals substantial differences among these residents. The proportion of widowed females is much higher than that for men, for example, and the percentage of persons still in the labor force drops sharply as the particular group advances in age. Generalizations about the elderly as a whole, therefore, should be supplemented by additional details for subgroups whenever the range and distribution of values are important.

As of 1985, 62.4 percent of elderly Georgians were female and 37.6 percent were male; 77.6 percent were white and 22.4 percent black. As of 1980, almost all were born in the U.S. and over three-fourths were born in Georgia. Almost all spoke English at home, and "home" was the same house as in 1975 for 79 percent. Over half had completed fewer than nine years of school; about 14 percent had had at least one year of college. Close to half were married and another 45 percent were widowed or divorced; only 4.8 percent were single. 10.4 percent were civilian veterans.

Most maintained their own households or lived with a spouse or with other relatives. About 6.4 percent lived with non-relatives, in an institution, or in group quarters. Only 13 percent were still in the labor force, although the proportion ranged from 21 percent for those between 65 and 69 to 5.5 percent for those 75 and over. Over a quarter had money incomes below the poverty level in 1979, and another 10 percent had incomes below 125 percent of the poverty level. Their median income was highest ($10,050) for householders, and lowest ($3,666) for female unrelated individuals.

In December 1984, 926 out of every 1,000 were receiving Social Security benefits (OASDI, Supplemental Security Income, or both). In that year, 536,000 Georgians were enrolled in the Medicare hospital insurance program; those covered had many more admissions to hospitals than to skilled-nursing facilities.

THE FUTURE

The increasing absolute and relative number of elderly persons projected for Georgia is likely to lead to corresponding increases in the demand for appropriate housing, medical care, and other services tailored to their needs. The extent to which the elderly themselves will be able to provide for those needs is likely to vary with the group considered. In 1979, median household income of the elderly varied substantially from one subgroup to another and among geographic areas, as did the proportion of those with money incomes below the poverty level, and such differences are likely to continue in some degree into the future. Changes in the Medicare and Medicaid programs, the tax code, public and private retirement programs and retirement ages also will affect the financial fortunes of elderly Georgians.

Many of Georgia's older residents will live for many years after they reach 65. Based on mortality during 1979-1981, the National Center For Health Statistics estimates that on the average, a Georgian aged 65-66 has a remaining life expectancy of 16 years. The estimate varies with age and sex; it is highest for white females (18.9 years), and lowest for black males (13 years). Although Georgia ranks forty-seventh among the states in the average lifetime (72.2 years) of its residents, the number of persons reaching early and later old age will increase, and the resources and needs of the elderly will remain a concern of both the private sector and government.

Second in a
continuing series

Regional Economic Conditions

Hugh Nourse and John Drye

THE NORTH REGION

Much of the North region, the highlighted portion on the Georgia map, is part of the state's wildlife management areas. This helps explain why the region's industrial manufacturing base is neither as large nor as well diversified as that of the Northeast Piedmont (featured in the previous issue). The North region's industrial base includes 126 plants. The largest employers in the region are the textile; apparel; stone, clay and glass; and lumber industries. These four industries account for 74 (59 percent) of the industrial plants operating in the area.

Industrial growth is not promising due to the concentration of employment in the slumping textiles and apparel industries. Two counties in the region, Rabun and Fannin, have approximately 35 percent and 25 percent of its work force employed in textiles and apparel. As Figure 1 shows, unemployment rates in the North region were very stable between 1980 and 1985. Though the civilian labor force unemployment rate actually decreased, the region's unemployment rates nevertheless have averaged about 1.4 percent higher than the statewide unemployment rates. The region's civilian labor force unemployment rates fluctuated between 8.4 percent in 1980, to a peak of 9.4 percent in 1982, and 7.4 percent three years later. During 1980-1986, the apparel and textiles industries experienced a statewide reduction in employment of 1.8 percent and 12.8 percent respectively. If the North region's employment decline in these industries typifies that of the state's, then other industries in the region must be growing significantly in order to absorb the reduction. The industries providing this employment growth probably are the lumber, and the stone, clay, and glass industries which experienced a statewide employment gain of 22.3 percent and 19.4 percent respectively, during 1980-1986.

The entire North region is included in the Atlanta retail trade area and borders the Chattanooga, Rome, and Anderson retail trade areas. These retail trade areas apparently draw many sales out of the region, as consumers are attracted to two large malls, one located in Whitfield County in the Northwest region and one located in Hall County in the Northeast Piedmont region. These counties contain the only large malls located in this part of the state. Nevertheless, tourism may provide some retail income since the North region is the heart of the Georgia mountain area.

During 1980-1985, residential construction growth in this region was steady (Figure 2). The compounded rate of growth from 1980-1985 for single-family housing construction and total residential construction was 14 percent and 13.8 percent respectively. This growth primarily was supported by an increase in employment and was sustained in spite of the high interest rates during 1980-1982. Residential construction starts jumped from 295 in 1984 to 376 in 1985, and is a positive sign for economic growth in the region.

Nonresidential construction (Figure 3) has been dominated by office, bank, and professional buildings construction although building costs have fluctuated wildly. The cost of office and professional buildings construction has varied from a high of $7,883,038 in 1983 to a low of $30,000 in 1985. Part of the increase in 1983 can be explained by interest rates falling from their 1982 levels. A surplus of office and professional building space caused by 1983's high construction levels could explain part of the decrease in office construction in 1984 and 1985.

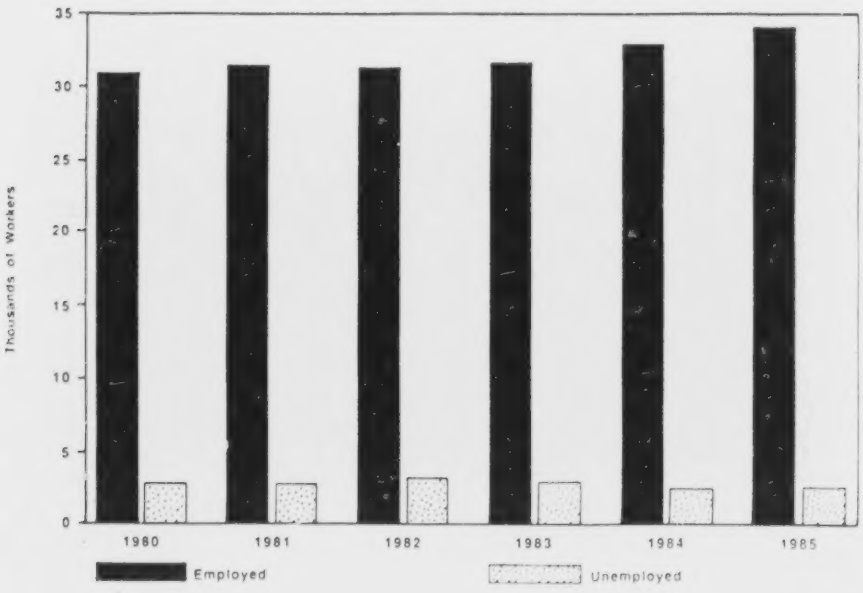
Retail store construction was the most stable of the three nonresidential types of construction, varying between $118,000 and $680,000 during 1980-1984. In 1985, however, retail store construction increased to over $1 million, a gain that could be due to a shortage of retail stores in the region.

During 1980-1985, industrial construction was very low. None took place during 1983 and 1984. By 1985, however, it rebounded sharply to $465,907, its highest level during the six-year period. This substantial increase is probably associated with the 3.7 percent increase in employment over 1984 levels.

Fannin
Towns
Union
Rabun
Gilmer
Lumpkin
Pickens
Dawson
Dade
Catoosa
Whitfield
Murray
Walker
Chattooga
Gordon
Floyd
Bartow
Cherokee
Forsyth
Polk
Paulding
Cobb
Haralson
Douglas
Fulton
Carroll
Coweta
Heard
Troup
Harris
Talbot
Muscogee
Chattahoochee
Marion
Stewart
Webster
Sumter
Quitman
Randolph
Terrell
Clay
Calhoun
Early
Baker
Seminole
Decatur
Grady
Mitchell
White
Habersham
Stephens
Banks
Franklin
Hart
Hall
Jackson
Madison
Elbert
Barrow
Clarke
Oglethorpe
Oconee
Gwinnett
DeKalb
Rockdale
Walton
Newton
Clayton
Fayette
Henry
Spalding
Butts
Pike
Lamar
Upson
Crawford
Monroe
Jones
Bibb
Twiggs
Peach
Taylor
Houston
Macon
Schley
Dooly
Crisp
Pulaski
Wilcox
Turner
Worth
Tift
Berrien
Colquitt
Cook
Thomas
Brooks
Lowndes
Echols
Lanier
Clinch
Ware
Charlton
Pierce
Atkinson
Coffee
Bacon
Jeff Davis
Ben Hill
Irwin
Telfair
Wheeler
Montgomery
Toombs
Tattnall
Evans
Appling
Wayne
Long
Liberty
Bryan
Chatham
McIntosh
Glynn
Camden
Brantley
Dodge
Laurens
Treutlen
Candler
Bulloch
Effingham
Jenkins
Screven
Emanuel
Johnson
Wilkinson
Washington
Jefferson
Burke
Baldwin
Hancock
Glascock
Jasper
Putnam
Morgan
Greene
Taliaferro
Warren
McDuffie
Columbia
Richmond
Wilkes
Lincoln
Oglethorpe

Figure 1

Civilian Labor Force



Source: Georgia Department of Labor, Labor Information Systems, July 1988.

Table 1

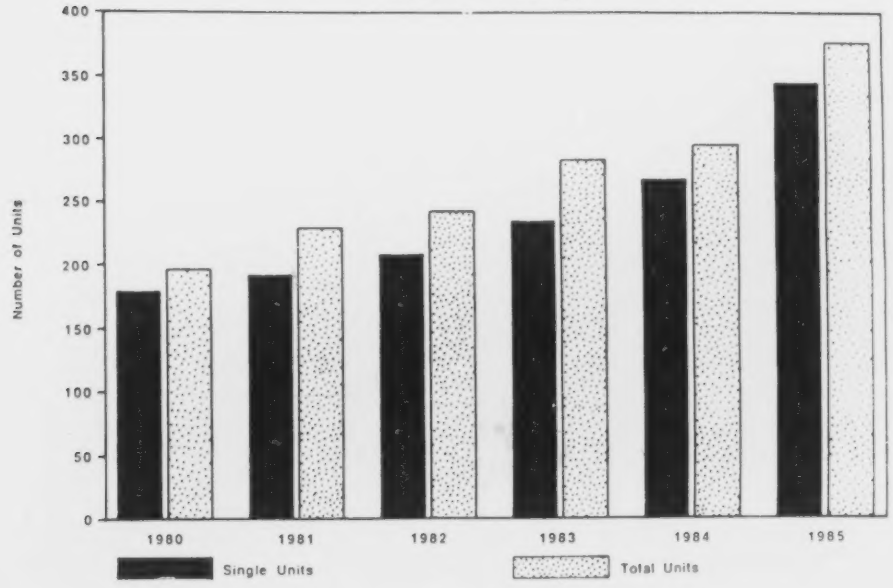
North Region
Number of Manufacturing Plants by Employment

Industry	Number of Employees				
	1-19	20-99	100-249	>250	Total
Food and kindred products	3	2	0	1	6
Tobacco manufactures	0	0	0	0	0
Textile mill products	4	1	3	2	10
Apparel and other textile products	4	7	1	3	15
Lumber and wood products	34	4	0	0	38
Furniture and fixtures	4	1	1	0	6
Paper and allied products	1	0	0	0	1
Printing and publishing	11	0	0	0	11
Chemicals and allied products	0	0	0	0	0
Petroleum and coal products	1	0	0	0	1
Rubber and misc. plastics products	0	1	1	1	3
Leather and leather products	1	1	0	1	3
Stone, clay, and glass products	8	2	1	0	11
Primary metal industries	0	0	0	0	0
Fabricated metal products	4	1	0	0	5
Machinery, except electrical	7	0	1	0	8
Electric and electronic equipment	0	1	0	0	1
Transportation equipment	1	1	0	0	2
Instruments and related products	0	0	0	2	2
Misc. manufacturing industries	1	0	0	0	1
Total	84	22	8	10	124

Source: U.S. Department of Commerce, Census of Manufacturing, 1982.

Figure 2

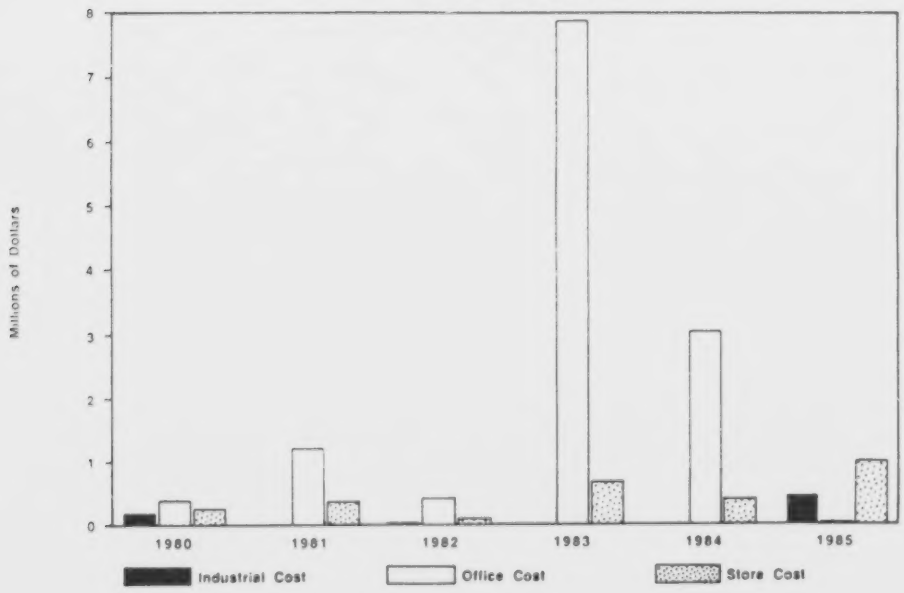
Residential Buildings



Source: U.S. Department of Commerce

Figure 3

Cost of Construction



Source: U.S. Department of Commerce, Bureau of the Census

Covered Employment Growth in Georgia's Counties

Elke Kespohl

The availability of monthly employment data on a county basis, the timeliness of the data, and the consistency in coverage for eight years make covered employment useful for evaluating the degree to which Georgia's counties have recovered from the recession of the early 1980s. Using total changes to evaluate growth trends is not very helpful since counties with high employment levels will be most likely to exhibit high total changes. If, for example, the number of jobs in a county was 10,000 three years ago, and is now 11,000, then the percentage change would be relatively small when compared to the percentage change an increase of that magnitude would represent for a county that had only 1,500 jobs three years ago. For this reason, we chose a relative measure, the annual average rate of growth in covered employment from March 1983 to March 1986. Nevertheless, the results must be interpreted with caution, and the information that can be extracted from the figures is limited.

GROWTH TRENDS IN GEORGIA'S COUNTIES

On the national level, the most recent U.S. recession ended in November 1982. Although the Coincident Economic Indicator for Georgia turned upward late in that year, recovery in individual counties may have lagged. Analysis of the data indicates changes from March to March are a more reliable measure for recovery from the recession for the years considered. March data for Georgia are relatively stable, and appear to be less affected by unexpected fluctuations than those for other months.

Table 1 shows covered employment figures for March 1983 and March 1986, and the annual average rate of change from March 1983 to March 1986. The counties have been sorted according to their growth rates, starting with those counties that showed the highest positive rates of change. The corresponding figures for the state are also listed for comparison.

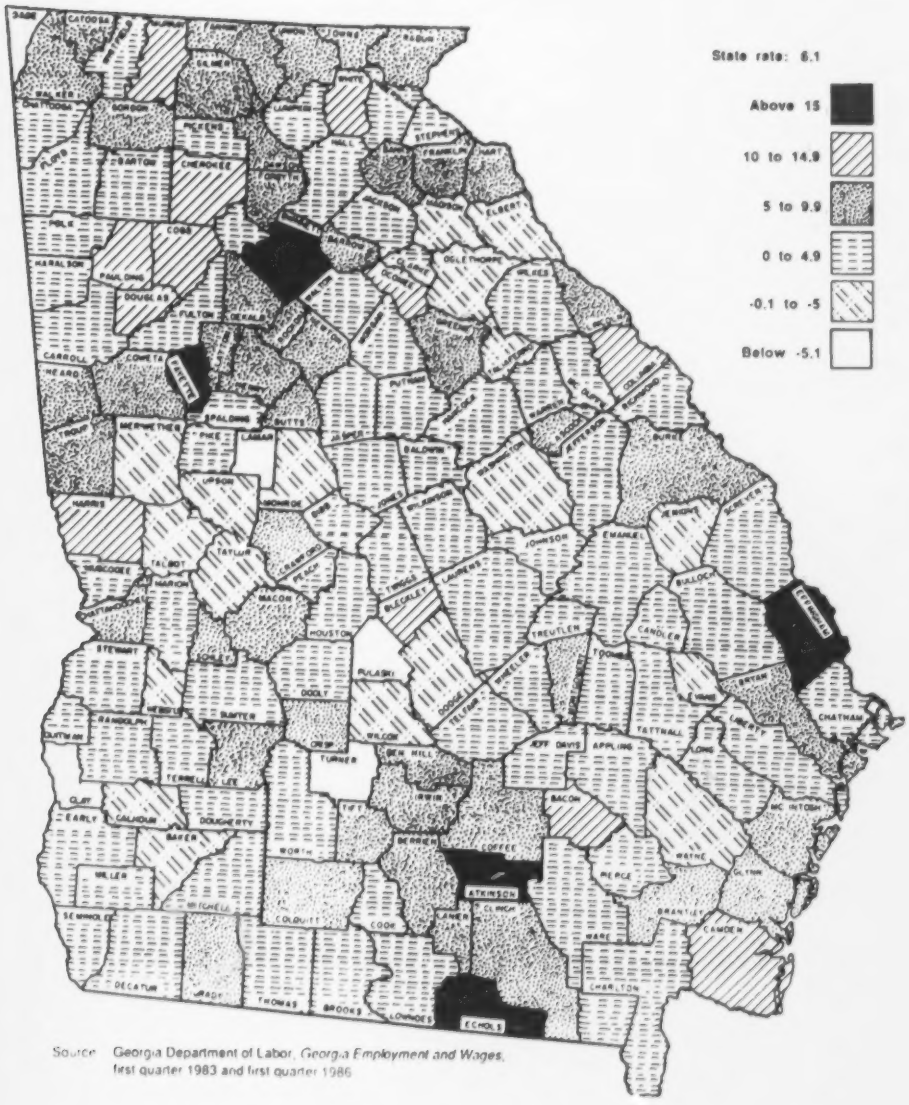
Georgia's covered employment grew at an annual average rate of 6.1 percent from march 1983 to March 1986. Forty-three counties, 19 of them belonging to Metropolitan Statistical Areas, grew at an annual average rate greater than 6.1 percent. Over two-thirds of the counties (116) grew at an annual average rate below the state level or suffered a decrease in covered employment. Of Georgia's 159 counties, 136 grew at a positive rate. Gwinnett county grew the fastest, increasing by over 20 percent. Four counties had a growth rate between 15 and 19.9 percent, 12 counties ranged between 10 and 14.9 percent, and 47 counties were between 5 and 9.9 percent. By far the largest number of counties, 72, which is about 45 percent of all counties, had growth rates between 0 and 4.9 percent. Eighteen counties ranged between -5 and -.1 percent, four counties between -10 and -5.1 percent, and one county had an annual average rate of change of less than -10.1 percent.

The map gives a more complete picture of the regional patterns of change. Interestingly, several geographic clusters of similar growth rates can be observed. Concentrations of low growth counties are found in west Georgia, especially Meriwether, Upson, Lamar, Monroe, Talbot, and Taylor counties; in northeast central Georgia consisting of Madison, Elbert, Oglethorpe, and Taliaferro counties; and in the southwest central Georgia counties of Pulaski, Dodge, Wilcox, and Turner. High and moderately high growth counties are concentrated in an area including part of west and west central Georgia, the Atlanta MSA in north central Georgia, and reaching up to the mountain counties in north Georgia. Two more relatively high growth areas can be identified, one including part of south and southeast Georgia, and the other, part of coastal Georgia.

INDUSTRIAL EMPLOYMENT IN LEADING AND LAGGING GROWTH COUNTIES

The annual average growth rates for covered employment do not indicate why some counties seem to have recovered extremely well while others suffered a decrease in covered employment during a general recovery. A closer look at the industrial composition of covered employment in the five leading and five lagging counties provides some clues about the disparity. Table 2 shows the industrial composition of covered employment for March 1983 and March 1986 for the five leading growth counties, Gwinnett, Echols, Effingham, Fayette, and Atkinson; and Table 3 highlights the five lagging growth counties, Clay, Lamar, Pulaski, Turner, and Dade. For some counties, especially smaller ones, the data are not complete. To preserve anonymity of establishments, the BLS withholds publication of data (indicated by a -- entry) for any category in which there are fewer than three

Average Covered Employment Growth Rates
March 1983 to March 1986



Source: Georgia Department of Labor, *Georgia Employment and Wages*, first quarter 1983 and first quarter 1986.

Explaining the Data

The BLS *Handbook of Methods* compiled by the U.S. Department of Labor describes covered employment as employment data for all workers who are covered by state unemployment insurance (UI) laws and civilian workers covered by Unemployment Compensation for Federal Employees (UCFE).

Employment data represent the number of workers on business payrolls during the pay period that includes the 12th of the month. The count includes all corporation officials, executives, supervisory personnel, clerical workers, wage earners, pieceworkers, and part-time workers. Also included are persons on paid sick leave, paid holiday, and paid vacation (with one exception: persons on leave without pay for the entire payroll period are excluded). Persons on the payrolls of more than one establishment are counted each time reported. Workers with nontaxable income also are counted.

UI and UCFE figures are comprehensive, accurate, and basically comparable from state to state. Insurance coverage was successively broadened through 1978, and from that year on, the coverage has been consistent. In 1986 UI and UCFE together covered about 97 percent of civilian employment.

The Bureau of Labor Statistics summarizes employment and wage data at the county, state, and national levels, and by industry and by size of reporting unit. The BLS receives the raw data from the employment security agencies of all fifty states, the District of Columbia, Puerto Rico, and the Virgin Islands, and publishes summaries in the monthly *Employment and Wages*. Although other statistical series produce employment and wage data comparable in some respects to those discussed here, *Employment and Wages* appears to be the most useful source for evaluating labor trends and major industry developments because of its universal coverage, continuity, and timeliness.

---

reporting units, or in which the employment of a single installation or establishment accounts for over 80 percent of the industry.

It is not surprising that Gwinnett, Effingham, and Fayette counties rank among the top five in covered employment growth. According to the Census Bureau, in 1984 and 1985 Gwinnett county was the fastest growing county in the U.S. in terms of population among all counties with a population larger than 200,000. Such a rapid population growth has been accompanied by an annual average growth rate in covered employment three times greater than the state's growth rate. The largest effect is the more than 100 percent increase in wholesale and retail trade employment over the last three years. Very large increases in contract construction, manufacturing, finance, insurance and real estate, and services also should be noted.

Fayette county also belongs to the Atlanta MSA, and like Gwinnett county, an increase in covered employment from March 1983 to March 1986 has occurred in all industries, with especially high growth in contract construction, manufacturing, retail trade, and services. Effingham is one of the smaller counties in the Savannah MSA, and had low absolute, but high relative increases throughout the major industries, especially manufacturing and contract construction.

At first glance, it seems to be surprising that Echols and Atkinson counties rank among the top five counties in covered employment growth. Tracing Echols' high relative increase back to the individual industries is extremely difficult to do from the information available because of deletions to protect confidentiality. With small counties such as Echols, a small absolute increase in covered employment may amount to a large relative increase, but the change may not be of great magnitude when compared to other counties or the state.

Table 2 indicates more about the forces behind the high annual average growth rate in Atkinson county, but again, the large relative growth rate should not be overemphasized because of the modest size of the county. Apparently, the more than 100 percent increase in manufacturing was the main cause of expansion, along with smaller increases in contract construction, finance, insurance and real estate, and services.

Among the five lagging growth counties, Clay county is located in the southwest corner of Georgia, a primarily rural area that traditionally ranks low in personal income and other measures of development. Although employment in services increased slightly, the increase was outweighed by decreases in contract construction, wholesale and retail trade, local government employment, and especially an approximately 600 percent decrease in manufacturing. Although Lamar county shows slight increases in nearly all industries except manufacturing, the over 200 percent drop in manufacturing obviously is responsible for the overall decrease in covered employment.

Little can be said about Pulaski county, given the information in Table 3. In March 1983, a manufacturing figure was not reported. The total for all industries listed in the table is 2,077. Adding up the individual industries' figures amounts only to 1,382. Consequently, there is a difference of 695 jobs. A possible reason could be that

TABLE 1

Change in Covered Employment in Georgia's Counties
March 1983 to March 1986

County	Covered Employment March 1983	Covered Employment March 1986	Annual Average Rate of Growth (%)
Gwinnett	55,404	96,604	20.4
Echols	153	263	19.8
Effingham	1,831	2,967	17.5
Fayette	6,094	9,641	16.5
Atkinson	868	1,324	15.1
Cobb	105,987	156,007	13.8
Cherokee	7,949	11,563	13.3
White	2,324	3,356	13.0
Bleckley	2,176	3,107	12.6
Oconee	1,444	2,040	12.2
Camden	5,276	7,282	11.3
Douglas	9,426	12,987	11.3
Harris	2,288	3,074	10.3
Paulding	2,964	3,979	10.3
Murray	5,601	7,517	10.3
Columbia	6,415	8,583	10.2
Bacon	2,348	3,122	10.0
Henry	7,548	10,031	9.9
Gordon	10,239	13,502	9.7
Banks	1,815	2,389	9.6
Towns	1,026	1,319	8.7
Rockdale	11,845	15,213	8.7
Lee	1,531	1,965	8.7
Schley	819	1,049	8.6
Berrien	3,600	4,566	8.2
Lanier	832	1,055	8.2
Forsyth	6,604	8,320	8.0
DeKalb	207,085	258,914	7.7
Gilmer	3,009	3,760	7.7
Clayton	56,766	70,925	7.7
Catoosa	7,416	9,229	7.6
Glascock	453	563	7.5
Union	2,011	2,497	7.5
Newton	8,538	10,431	6.9
Coweta	11,880	14,508	6.9
Grady	4,559	5,561	6.8
Brantley	932	1,136	6.8
Burke	11,665	14,205	6.8
Rabun	2,846	3,465	6.8
Barrow	6,716	8,176	6.8
Greene	3,043	3,673	6.5
Franklin	3,842	4,611	6.3
Irwin	1,866	2,235	6.2
Montgomery	1,310	1,561	6.0
Troup	20,458	24,226	5.8
Colquitt	9,526	11,277	5.8
Fannin	2,291	2,711	5.8
Crisp	6,012	7,106	5.7
Crawford	761	898	5.7
Macon	2,885	3,402	5.6
Lincoln	1,241	1,462	5.6
Bryan	1,502	1,765	5.5
Tift	12,796	15,035	5.5
Dawson	729	855	5.5
Walker	10,495	12,281	5.4
Chattahoochee	5,472	6,387	5.3
Clinch	2,041	2,381	5.3
Butts	2,946	3,429	5.2
Glynn	22,822	26,561	5.2
Heard	1,477	1,718	5.2
Hart	5,213	6,051	5.1
Ben Hill	5,008	5,808	5.1
Coffee	8,253	9,554	5.0
McIntosh	1,401	1,620	5.0
Treutlen	1,075	1,242	4.9
Warren	1,681	1,941	4.9
Sumter	10,240	11,774	4.8
McDuffie	4,927	5,651	4.7
Twiggs	1,702	1,948	4.6
Whitfield	35,453	40,384	4.4
Hall	31,952	36,369	4.4
Mitchell	5,102	5,782	4.3
Jefferson	4,725	5,353	4.2
Lowndes	23,900	27,067	4.2
Clarke	40,873	46,281	4.2
Pickens	3,491	3,942	4.1
Dougherty	41,440	46,714	4.1
Brooks	2,815	3,172	4.1
Morgan	3,523	3,969	4.1
Jones	1,630	1,834	4.0
Putnam	3,441	3,871	4.0
Long	341	383	3.9
Decatur	8,416	9,451	3.9
Seminole	1,838	2,061	3.9
Wheeler	837	938	3.9
Richmond	78,848	88,350	3.9
Houston	31,768	35,427	3.7
Chatham	81,596	90,311	3.4
Ware	11,662	12,879	3.4
Jeff Davis	4,777	5,271	3.3
Peach	5,726	6,315	3.3
Lumpkin	2,601	2,866	3.3
Marion	1,190	1,311	3.3
Jackson	6,139	6,738	3.2
Fulton	501,596	550,140	3.1
Bartow	14,170	15,530	3.1
Johnson	2,016	2,200	3.0
Emanuel	5,985	6,525	2.9
Quitman	171	186	2.8
Cook	3,209	3,489	2.8
Bibb	61,450	66,766	2.8
Toombs	7,314	7,939	2.8
Worth	2,946	3,193	2.7
Stephens	8,397	9,101	2.7
Habersham	9,093	9,848	2.7
Floyd	29,389	31,814	2.7
Muscogee	64,474	69,754	2.7
Polk	8,298	8,966	2.6
Liberty	8,320	8,989	2.6
Laurens	13,314	14,369	2.6
Wilkinson	2,778	2,996	2.6
Appling	5,044	5,434	2.5
Pierce	1,979	2,127	2.4
Carroll	22,487	24,125	2.4
Miller	1,176	1,259	2.3
Thomas	14,752	15,774	2.3
Hancock	1,397	1,489	2.1
Baldwin	15,484	16,483	2.1
Screven	3,631	3,863	2.1
Pike	1,278	1,357	2.0
Randolph	1,925	2,029	1.8
Walton	8,058	8,450	1.6
Dooly	2,202	2,309	1.6
Wilkes	3,581	3,752	1.6
Early	4,221	4,400	1.4
Terrell	2,811	2,927	1.4
Jasper	2,109	2,183	1.2
Tattnall	4,382	4,519	1.0
Candler	1,765	1,807	0.8
Bulloch	10,860	11,039	0.5
Chattooga	6,238	6,335	0.5
Telfair	3,810	3,865	0.5
Stewart	1,031	1,045	0.5
Charlton	1,764	1,781	0.3
Spalding	15,392	15,505	0.2
Haralson	6,363	6,409	0.2
Washington	6,198	6,176	-0.1
Oglethorpe	942	937	-0.2
Wilcox	979	973	-0.2
Wayne	6,386	6,318	-0.4
Monroe	5,679	5,543	-0.8
Taliaferro	181	176	-0.9
Jenkins	2,094	2,022	-1.2
Elbert	6,331	6,095	-1.3
Madison	2,174	2,078	-1.5
Baker	708	676	-1.5
Meriwether	5,233	4,964	-1.7
Taylor	1,593	1,504	-1.9
Upson	9,342	8,808	-1.9
Evans	2,532	2,386	-2.0
Talbot	768	721	-2.1
Webster	284	260	-2.9
Dodge	3,902	3,549	-3.1
Calhoun	1,346	1,177	-4.4
Dade	2,147	1,788	-5.9
Turner	2,579	2,086	-6.8
Pulaski	2,077	1,674	-6.9
Lamar	2,977	2,238	-9.1
Clay	611	413	-12.2
Georgia	2,163,728	2,584,945	6.1

Source: Georgia Department of Labor, *Georgia Employment and Wages*, first quarter 1983 and first quarter 1986.

TABLE 2

Industrial Composition of Covered Employment
Leading Growth Counties

Industry	Gwinnett		Echols		Effingham		Fayette		Atkinson	
	March 1983	March 1986	March 1983	March 1986	March 1983	March 1986	March 1983	March 1986	March 1983	March 1986
Agri., Forestry & Fishing	336	602	0	--	--	109	50	130	--	--
Mining**	--	159	0	--	--	11	--	--	0	0
Contract Construction	4,335	8,658	0	0	83	--	437	1,154	7	17
Manufacturing	15,385	21,314	13	32	295	323	1,406	2,069	307	781
Trans. & Pub. Utilities	1,928	2,789	--	--	35	47	254	328	2	--
Wholesale & Retail Trade	15,886	34,954	6	--	314	336	1,764	2,689	179	178
Fin., Ins. & Real Estate	1,870	4,832	0	0	--	56	331	393	24	30
Services	7,620	12,847	0	--	93	94	503	1,116	16	19
Federal Government	451	776	2	2	41	35	53	75	20	18
Local Government	7,000	9,112	102	106	787	922	1,215	1,561	250	242
State Government	406	555	16	13	47	49	39	50	59	36
Nonclassifiable Estab.	100	6	0	0	0	0	11	0	3	0
Industry Divisions with **	--	0	--	110	136	--	--	--	--	3
Total All Industries	55,404	96,604	159	269	1,831	2,967	6,094	9,641	868	1,324

** Industry Division does not meet disclosure criteria.
-- Data withheld for industries in which there are fewer than three reporting units, or in which the employment of a single establishment accounts for over 80% of the industry.

Source: Georgia Department of Labor, *Georgia Employment and Wages*, first quarter 1983 and first quarter 1986.

TABLE 3

Industrial Composition of Covered Employment
Lagging Growth Counties

Industry	Clay		Lamar		Pulaski		Turner		Dade	
	March 1983	March 1986	March 1983	March 1986	March 1983	March 1986	March 1983	March 1986	March 1983	March 1986
Agri., Forestry & Fishing	0	--	0	--	12	9	76	70	--	--
Mining**	0	0	0	0	0	0	0	0	--	--
Contract Construction	39	16	45	75	22	22	91	53	8	28
Manufacturing	150	26	1,476	596	--	195	1,043	584	707	591
Trans. & Pub. Utilities	--	--	84	100	95	114	27	30	--	73
Wholesale & Retail Trade	112	96	386	530	509	495	607	561	417	360
Fin., Ins. & Real Estate	--	0	60	93	70	75	73	74	37	44
Services	20	121	198	227	312	379	170	201	539	331
Federal Government	19	12	24	25	18	22	20	35	19	18
Local Government	216	114	375	450	309	321	427	422	338	312
State Government	19	25	162	135	35	42	43	56	25	28
Nonclassifiable Estab.	15	0	21	0	0	0	2	0	6	0
Industry Divisions with **	21	--	--	--	--	0	0	0	51	--
Total All Industries	611	413	2,977	2,238	2,077	1,674	2,579	2,086	2,147	1,788

** Industry Division does not meet disclosure criteria.
-- Data withheld for industries in which there are fewer than three reporting units, or in which the employment of a single establishment accounts for over 80% of the industry.

Source: Georgia Department of Labor, *Georgia Employment and Wages*, first quarter 1983 and first quarter 1986.

between March 1983 and March 1986 an important plant closed, eliminating more than 80 percent of the industry. Indeed, further research in the annual *Georgia Manufacturing Directory* compiled by the Georgia Department of Industry and Trade indicates that a major textile manufacturing company closed four of its five branches, leading to the decline in manufacturing employment.

Turner county also suffered a vast drop in manufacturing employment, as well as decreases in agriculture, forestry and fishing services, contract construction, wholesale and retail trade, and in local government employment, that overwhelmed the small increases in other industries.

Dade is a small county located in the extreme northwest of the state in the Georgia mountains. A major decrease in manufacturing combined with decreases in wholesale and retail trade, services, and in local and federal government employment made the slight increases in contract construction and in finance, insurance and real estate negligible.

The results indicate that in general Georgia's economic recovery was rapid. Forty-three counties grew at a higher rate than the state, and 64 of the counties grew at an annual average rate that was greater than or equal to 5 percent. Only 23 counties showed a negative annual average rate of change.

Covered employment data for the individual industries for the five leading growth and five lagging growth counties revealed a number of differences between counties representing extremes of employment changes. In all, for the five lagging growth counties the negative growth rate was mainly the result of large decreases in manufacturing. When especially small counties are considered, the closing of one or more major plants can be responsible for this effect. The decrease in manufacturing usually was accompanied by smaller decreases in most of the other industries.

Elke Kespohl is a doctoral candidate in economics at the University of Georgia.

Population Growth in Georgia and the Southeast, 1980-1986

Suzanne A. Lindsay

Georgia's resident population (including the armed forces) grew by 11.7 percent over 1980-1986, according to provisional estimates recently released by the U.S. Department of Commerce, Bureau of the Census. An estimated 64,100 residents were added to the state over the six-year period, giving it the second-highest growth rate in the twelve-state Southeast. The southeastern region includes parts of the Census regions of the South Atlantic, East South Central, and West South Central, and is based on the regional definition adopted by the U.S. Bureau of Economic Analysis.

Florida led the twelve states with a 19.8 percent population increase; West Virginia, the only state in the region to lose population overall, trailed with an estimated loss of 1.6 percent. Georgia's next nearest regional competitors were North Carolina and Virginia, each with an 8.2 percent population increase for the period. The Southeast as a whole grew by an estimated 8.7 percent, or 4,607,000 residents, a rate well above the 6.4 percent estimated for the United States; Georgia's overall growth exceeded the southeast's rate by three percentage points and the national rate by 5.3 percentage points.

In both 1980 and 1986, Georgia ranked third in total population among the region's states, behind Florida and North Carolina but ahead of Virginia and Tennessee, the next most populous states.

Population of the U.S., Southeast, and Southeastern States, 1980 and 1986, with Estimated Changes

Area	Population (thousands) July 1, 1986 (Prov.)	Population (thousands) April 1, 1980 (Census)	Change, 1980-1986 Number	Change, 1980-1986 Percent
United States	241,078	226,546	14,532	6.4
Southeast[a]	57,276	52,669	4,607	8.7
Georgia	6,104	5,463	641	11.7
Alabama	4,052	3,894	159	4.1
Arkansas	2,372	2,286	86	3.8
Florida	11,675	9,746	1,928	19.8
Kentucky	3,729	3,661	68	1.9
Louisiana	4,501	4,206	295	7.0
Mississippi	2,625	2,521	104	4.1
North Carolina	6,333	5,882	451	7.7
South Carolina	3,377	3,122	255	8.2
Tennessee	4,803	4,591	212	4.6
Virginia	5,787	5,347	440	8.2
West Virginia	1,918	1,950	-31	-1.6

[a] Southeast defined as the twelve-state region listed.
Prov. = Provisional estimate. Estimates include Armed Forces residing in each state, and may not add to regional total because of rounding.

Source: U.S. Department of Commerce, Bureau of the Census, news release, "Estimates of the Resident Population of States, July 1, 1985 and 1986.

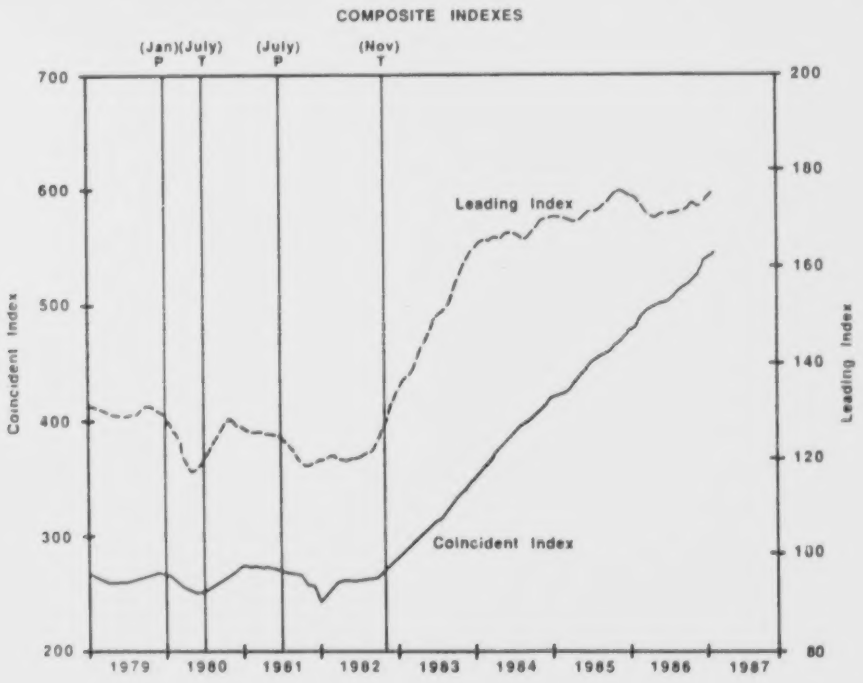
Composite Indexes of Leading and Coincident Georgia Economic Indicators

Overall, the leading indicator changed direction during the first quarter of 1987. In January it was stable, but in February and March, it rose 1.2 and .6 percent, respectively. Its seasonally adjusted component series showed a mixed performance. Initial unemployment claims dropped 24 percent in January, then remained somewhat constant over the next two months, increasing .4 percent in February, and declining .6 percent in March. New housing permits continued its volatile swings. The series dropped 26.6 percent in January, rebounded in February by 61.9 percent, and downswung in March by 24.6 percent. The help wanted advertising index for Atlanta remained relatively stable. In January and February it rose by 1.5 and .4 percent respectively, and in March it decreased .8 percent.

Year over year, the leading indicator had a mixed performance. In January it dropped 1.4 percent below its 1986 level, but in February and March it increased .1 and 1.6 percent, respectively, over the previous year. Seasonally adjusted initial unemployment claims showed levels of 13.1, 7, and 8.1 percent below those in first quarter 1986. New housing permits were unstable compared to last year. In January they were 34.5 percent below that of the previous year. They rebounded slightly in February to a level 1.2 percentage points above that in 1986, but dropped 20.6 percent below the 1986 level in March. The Atlanta help wanted advertising index continued its trend below the previous year's levels, dropping 7 percent in January, 8.8 percent in February, and 3.6 percent in March.

Month over month, the coincident indicator continued to rise. It climbed .9, 1.3, and .5 percent, respectively, during January, February and March. Real retail sales dropped 2.4 percent in January, but rebounded by 2.4 and 3.6 percent in February and March. Real manufacturing weekly earnings were variable, off a slight .3 percent in January, up by 2 percent in February, but dropping back 2.3 percent in March. Nonagricultural employment increased in January and February by .9 and .3 percent, respectively, and declined .2 percent in March.

Year over year, the coincident indicator rose substantially during the first quarter of 1987. In January, February, and March it showed levels of 11.9, 12.9, and 10.9 percent above the same months of 1986. Seasonally adjusted real retail sales were .2 percent below in January, rebounded 9.5 percent above the previous year's level in February, then slid to 3.4 percent below that for March 1986. Seasonally adjusted real manufacturing weekly earnings were off .9 percent compared to January 1986. In February the series was up 1.7 percent above the 1986 level, but in March it dipped .9 percentage points below that for the same month of 1986. In January, February and March, respectively, seasonally adjusted nonagricultural employment recorded levels 4.7, 4.6, and 4.3 percent above those in the corresponding months of 1986.



GEORGIA BUSINESS STATISTICS

SERIES	MAR 1987	FEB 1987	JAN 1987	MAR 1986
Georgia Leading Indicators Index[1] (1969=100)	175.58	174.61	172.61	172.84
Georgia Coincident Indicators Index[2] (1969=100)	545.85	543.02	536.10	492.11
Nonagricultural Employment[2] (thousands)	2735.6	2723.4	2719.4	2624.2
Manufacturing Employment[2] (thousands)	566.3	564.1	563.3	564.8
Average Weekly Earnings, Manufacturing[2] (dollars)	343.99	345.26	342.35	336.96
Help Wanted Advertising, Atlanta Index[3] (1967=100)	266	268	267	276
Taxable Retail Sales[4] ($ millions)	3525.7	3023.4	2813.1	3545.0
Building Permits[5]				
Residential Housing Units, Private (thousands)	6.0	6.0	3.7	7.6
Value of Residential Housing ($ thousands)	336879	304365	207785	351635
Value of Nonresidential Construction ($ thousands)	198794[P]	146834[P]	198946	200120[P]
Industrial Buildings	30018	12907	20648	14442
Office, Bank and Other Professional Buildings	28767	23138	32699	60861
Stores and Other Mercantile Buildings	50858	43403	34844	27079
Other	89151	67348	110755	97738
Consumer Price Index[6] (CPI-U, all items)				
South U.S. (December 1977 = 100)	180.2	179.5	178.7	176.6[c]
South/Population more than 1,200,000[a]	180.4	179.4	178.6	177.3[c]
South/Population 450,000 - 1,200,000[a]	182.3	181.7	180.8	178.2[c]
South/Population 50,000 - 450,000[a]	178.8	178.5	177.5	175.3[c]
South/Population Less than 50,000[a]	177.8	177.3	177.4	174.7[c]
Atlanta (1967=100)[b]	–	–	–	336.9[c]
Prices Received by Farmers, Georgia Index[7] (1977=100)	124	127	123	121
	1986:IV	**1986:III**	**1986:II**	**1985:IV**
Total Personal Income[8] ($ millions)	82047	81307	80134	77290

---

[1] Georgia Economic Forecasting Project, Division of Research, College of Business Administration, University of Georgia. Initial monthly values subject to revision.

[2] Labor Information Systems, Georgia Department of Labor.

[3] Series published by The Conference Board, Inc.

[4] Derived by the Division of Research, College of Business Administration, University of Georgia, from data of the Sales and Use Tax System, Georgia Department of Revenue.

[5] U.S. Department of Commerce, Bureau of the Census.

[6] U.S. Department of Labor, Bureau of Labor Statistics, Southeastern Regional Office.

[7] Georgia Department of Agriculture, Georgia Crop Reporting Service.

[8] U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System.

[P] Preliminary; imputation greater than 25 percent.

[a] Group size revised as of January 1, 1987.

[b] Atlanta index will be published semiannually (August, February) beginning in 1987.

[c] February, 1986.

Division of Research
College of Business Administration
University of Georgia
Athens, Georgia 30602

Second Class Postage Paid
Athens, Georgia

20814 CI224 6842
CONGRESSIONAL INFO SERVICE
STATISTICAL REF. INDEX
4520 EAST-WEST HIGHWAY
BETHESDA, MD 20814

GEORGIA BUSINESS AND ECONOMIC CONDITIONS

July-August 1987
Volume 47, number 4

Social Euthanasia: Youth versus Age

David L. Levine and Charlon I. Seegar

Journalists who have raised the cry that the costs of caring for the elderly are cheating the young, are inducing Social Euthanasia (spelled Youth versus Aging). The problems engendered by medical science, be they the saving of a premature infant in the neonatal ward, triple bypass heart surgery, or kidney dialysis, are complex and demand thoughtful consideration. Our nation is built on human capital, and public social policy, in effect, is the investment in human capital.

Just what is this investment? The current *Statistical Abstract of the United States* offers several perspectives. First, a 24-year distribution of social welfare expenditures under public programs is shown in Table 1. The dollar figures, like those of all national public programs, are large. In particular, in 1984, social insurance amounted to $342 billion, over half of which came from employee and employer taxes. Between 1960 and 1965, all health and medical care costs represented 12.2 percent of social welfare expenditures; in 1984, these costs rose to 23.1 percent of the total.

Two other perspectives measure the nature of the public investment in human capital. The *Statistical Abstract* also reports public human capital investment as percentages of Gross National Product (GNP) and of total government outlays (Table 2). In 1960, 10.3 percent of the GNP was invested in human capital; by 1983, the proportion rose to 18.2 percent.

Human capital as a percentage of total governmental outlays rose from 38.4 percent to 52.8 percent over this time span. In 1960, state and local jurisdictions were investing 60.1 percent in human capital. Throughout the 24 years, the state and local share remained fairly steady (varying from a high of 64.1 percent in 1960 to a low of 58.9 percent in 1983), whereas the federal investment in human capital had fluctuated by up to 26.5 percent.

Converting social welfare expenditures into per capita amounts and adjusting them for inflation yields another view of this investment (Table 3). Today's massive public investments in human capital began in the Great Depression and the New Deal. The Social Security Act of 1935 established two major income-maintenance programs: Old Age and Survivors Insurance (OASDI), which has had disability protection added, and Title II, the public assistance program. The former is a contributory program, that is, an "insurance" program in which employee and employer each make contributions under the Federal Insurance Contributions Act (FICA).

THE DEPENDENCY RATIO

Understandably, the question of who pays arises when such numbers are displayed. Some ethical problems, of course, are entwined with these totals. To depict the support base for human investment, a measure called the dependency ratio shows the ratio of persons 65 years and older plus those aged under 18 to every hundred persons of prime working age (18-64). Table 4 shows these ratios for selected years since 1950, with projections to 2080.

Note that, according to current Census Bureau projections, the total dependency ratio of 83.1 reached in 1965 will not be matched even by 2080, over a century later. Although these are authoritative numbers based on the most recent available census data, they are flawed. The Gerontological Society of America points out that "they fail to take into account such factors as the increasing labor force participation of women, the potential for significant portions of the elderly to work longer or the effect of economic growth."

If the dependency ratios are taken as is, they suggest that the nation has a number of years in which to devise a solution to the problem of supporting the aging and dependent populations. The real problem, however, is the implicit social contract whereby successive birth cohorts

are interdependent. Thus, in a 1983 poll commissioned by the American Council of Life Insurance, 88 percent of the elderly believed parents should accept responsibility for providing grown children with a college education and 85 percent felt responsibility to provide their adult children with a place to live if those children were unable to afford to rent or buy.

The Harris Poll recently reported that given a choice between cutting defense spending or cutting Medicare, 65 percent of those 18-29 years of age, 73 percent of those aged 30-49, 73 percent of those aged 50-64, and 71 percent of those over 65 would prefer to see defense spending cut.

YOUTH VERSUS AGE

The title of this article is designed to highlight the sterile effect of posing the question of social investments and equities. Some positive approaches, seeking to reframe the problem, have been put into motion. Efforts to anticipate higher dependency ratios are already in process; e.g., altering the 65-year retirement age by two months at a time, beginning in 2000, until age 67 is reached, as provided by the Social Security Amendments of 1983.

Building on a perception by the majority of people over 65 that their health is fairly good, federal and state governments have launched programs designed to promote health. For the long haul this approach is calculated to minimize the costs of disability without regard to age. Additionally, private insurance carriers are developing long-term care products designed to insure against costs that Medicare does not cover.

The bottom line is that the 65 year mandatory age marker is no longer binding nor economically practical. Agism has been addressed in legislation and in practice. On one hand, recognition of its sheer injustice and illogic has resulted in age discrimination legislation, which first raised the mandatory retirement age to 70, and now, with recent amendments, has set the stage for the elimination of mandatory retirement practices with certain exceptions for firefighters, law enforcement officers, and tenured faculty. Implementation will require some 20 years; during that time, personnel shortages will demand the full utilization of available competent human resources without regard to age.

While the long-term social effect may be to erase the stereotype/myth of uselessness at 65, the psychological effect will be the creation of options and choices. For the older American, Hamlet's "to be or not to be" may become: to work or not to work, to work full-time or to work part-time. The need for decision-making by the older American can provide a sense of self mastery. It should be recognized, however, that while decision-making generates independence and autonomy, it requires active participation and creates anxiety.

More people than ever are struggling with the interdependence of the generations. Considerable philosophic analysis has revolved around the concepts of rights, obligations, and reciprocity. Delving into such questions is beyond the limitations of this discussion, but one writer notes that the rising costs of care for the elderly is only partly an economic issue. He feels that because we are a wealthy nation, we can afford to provide more funds for the elderly, if we elect to give up something. How we make the choice depends more on basic philosophic values rather than on economic productivity.

QUALITY OF LIFE

Among the countless issues that affect the quality of life of the elderly and their families are the problems associated with catastrophic and/or terminal illness. Although these conditions are not age-limited, they are most frequently encountered by the older person and his/her family. Studies have reported that half of the dying patient's medical and associated costs are incurred in the last six months of life and increase as the end nears. High public awareness is generated when a story such as Karen Quinlan's reaches the front page.

Terminal illness of the aged poses ethical, social, and economic issues. The Georgia legislature, in authorizing the Living Will, recognized the importance of the individual in the decision to utilize extraordinary medical measures to delay natural death. The ethical issues are central, for implicitly, they determine the social and economic issues.

GEORGIA BUSINESS AND ECONOMIC CONDITIONS

July-August 1987
Volume 47, number 4

DIVISION OF RESEARCH

Albert W. Niemi, Jr.
Dean of the College
Director of Research

Phillip A. Cartwright
Director, Economic Forecasting

Lorena M. Akioka
Editor

Suzanne A. Lindsay
Research Coordinator

GEORGIA BUSINESS AND ECONOMIC CONDITIONS (ISSN 0297-3857) is published bimonthly by the Division of Research, College of Business Administration, The University of Georgia, as a service to the business and academic communities. Signed articles reflect the author's opinion but not necessarily those of the Division of Research, College of Business, or The University of Georgia. This publication is sent free of charge upon request.

Manuscripts and letters to the Editor should be sent directly to us. **Postmaster** send address changes to: Division of Research, College of Business Administration, The University of Georgia, Athens, GA 30602

Second class postage paid at Athens, Georgia

Table 1

Social Welfare Expenditures Under Public Programs: Fiscal Years 1960 to 1984

Year	Social Welfare Outlays: Total	Average Annual Percent Change	Percent from Non-Trust Funds	Social Insurance	Public Aid	Health and Medical Programs[1]	Veterans Programs	Education	Housing	Other Social Welfare	All Health and Medical Care[2]
					Total (In Millions of Dollars)						
1960	52,293	9.9	65.5	19,307	4,101	4,464	5,479	17,626	177	1,139	6,395
1965	77,175	8.1	65.9	28,123	6,283	6,246	6,031	28,108	318	2,066	9,535
1970	145,856	13.6	64.8	54,691	16,488	9,907	9,078	50,845	701	4,145	25,391
1974	239,397	13.2	61.2	99,002	31,520	14,953	14,112	70,534	2,554	6,722	41,512
1975	290,084	21.2	60.9	123,013	41,308	17,788	17,019	80,834	3,172	6,947	52,348
1980	492,797	14.5	56.8	229,754	71,799	27,919	21,466	121,050	7,210	13,599	100,563
1984[p]	671,972	4.7	49.5	342,264	89,871	37,864	26,127	152,025	10,374	13,445	155,092
					Percent of Total Expenditures, by Type						
1960	100.0	(x)	(x)	36.9	7.8	8.5	10.5	33.7	.3	2.2	12.2
1965	100.0	(x)	(x)	36.4	8.1	8.1	7.8	36.4	.4	2.7	12.4
1970	100.0	(x)	(x)	37.5	11.3	6.8	6.2	34.9	.5	2.8	17.4
1975	100.0	(x)	(x)	42.4	14.2	6.1	5.9	27.9	1.1	2.4	18.0
1980	100.0	(x)	(x)	46.6	14.6	5.7	4.4	24.5	1.5	2.8	20.5
1984[p]	100.0	(x)	(x)	50.9	13.4	5.6	3.9	22.6	1,5	2.0	23.1

[1] Excludes program parts of social insurance, public aid, veterans, and other social welfare.

[2] Combines "Health and Medical Programs" with medical services included in social insurance, public aid, vocational rehabilitation, and antipoverty programs.

[p] Preliminary.

Source: Adapted from U.S. Bureau of the Census, *Statistical Abstract of the United States, 1987*, Table 573, p. 340.

Table 2

Social Welfare Expenditures Under Public Programs as Percent of GNP and Total Government Outlays: 1960 to 1984

Year	Total (billion dollars)	Average Annual Percent Change[1]	Percent of Total GNP[2]	Percent of Total Government Outlays (billion dollars)
		Total Expenditures		
1960	52.3	9.9	10.3	38.4
1965	77.2	8.1	11.5	42.2
1970	145.9	13.6	14.7	48.2
1975	290.1	14.7	19.0	57.4
1980	492.8	14.5	18.5	56.5
1984[p]	672.0	4.7	18.2	52.8
		Federal		
1960	25.0	11.3	4.9	28.1
1965	37.7	8.6	5.6	32.6
1970	77.3	15.4	7.8	40.1
1975	167.4	16.7	11.0	53.8
1980	302.6	15.0	11.3	54.3
1984[p]	419.3	5.1	11.3	50.2
		State and Local Government		
1960	27.3	8.7	5.4	60.1
1965	39.5	7.6	5.9	60.4
1970	68.5	11.7	6.9	64.0
1975	122.7	12.4	8.0	63.5
1980	190.2	13.7	7.1	61.0
1984[p]	252.7	3.4	6.8	58.9

[1]Change from prior year shown; for 1960, change from 1955.

[2]Gross national product.

Source: Adapted from U.S. Bureau of the Census, *Statistical Abstract of the United States, 1987*, Table 575, p. 342.

Table 3

Social Welfare Expenditures Under Public Programs, Total and Per Capita, In Current and Constant (1984) Dollars: 1960 to 1984

Year	Current Dollars								Constant (1984) Dollars[3]				
		Per Capita								Per Capita			
	Total[1] (billions)	Total[1,2]	Social Insurance	Education	Public Aid	Health and Medical	Veterans	All Health and Medical Care	Total[1] (billions)	Total[1,2]	Social Insurance	Education	Public Aid
1960	52.1	285	105	96	22	24	30	35	171.3	937	345	316	72
1965	76.9	391	142	143	32	32	30	48	233.7	1,188	432	435	97
1970	145.5	701	262	245	79	48	43	122	367.0	1,768	661	618	199
1975	289.4	1,326	561	370	189	82	77	240	528.9	2,424	1,025	676	345
1980	491.7	2,138	995	526	312	121	92	437	614.3	2,671	1,243	657	390
1984[P]	670.4	2,801	1,424	635	376	158	108	648	670.4	2,801	1,424	635	376

[1] Excludes payments within foreign countries for education, veterans, OASDHI, and civil service retirement.

[2] Includes data for programs not shown separately.

[3] Constant dollar figures are based on implicit price deflators for personal consumption expenditures published by U.S. Bureau of Economic Analysis.

Source: U.S. Bureau of the Census, *Statistical Abstract of the United States, 1987*, Table 675, p. 342.

Table 4

Number of Dependents per 100 Persons Aged 18 to 64 Years, 1950-2080*

Year	Total	Under Age 18	Age 65 Years and Over
Estimates			
1950	64.4	51.0	13.3
1955	73.5	58.3	15.2
1960	81.6	64.9	16.8
1965	83.1	65.7	17.4
1970	78.0	60.6	17.5
1975	71.3	53.3	18.0
1980	64.6	46.0	18.6
1982	62.9	44.1	18.8
Projections			
1985	62.1	42.7	19.4
1990	62.5	41.9	20.6
1995	63.7	42.3	21.4
2000	61.8	40.7	21.1
2010	58.1	36.2	21.9
2020	65.6	36.9	28.7
2030	74.8	37.8	37.0
2050	74.6	36.6	38.0
2080	78.1	36.2	41.9

* Projection data from middle series. As of July, includes armed forces overseas.

Source: Bureau of the Census, "Projections of the Population of the United States, by Age, Sex, and Race: 1983-2080," *Current Population Reports*, ser. P-25, no. 952 (Washington, D.C.: U.S. Government Printing Office, 1984).

Terminal care is being assessed from moral, ethical, and legal perspectives. The economic issues are distinct, but closely related. Great Britain's National Health Plan severely limits kidney dialysis. In this country, Medicare coverage is legally authorized for certain individuals with chronic kidney failure. In 1974, there were almost 16,000 beneficiaries under the End Stage Renal Dialysis Program with a per person cost of $254,000 and program costs of $2.3 billion. The English program has curtailed health care expenditures, but at a moral and ethical cost we in the United States do not choose to pay.

Georgia has just begun to address these problems. Issues such as the Living Will, long-term health care, and the well elderly health initiative are important, and can be subjected to fairly objective analysis. Issues that involve moral and economic considerations require more than factual analysis, however; they demand both societal commitment and the recognition that each of us has a multiple commitment: to the generations that are aged and aging, as well as to ourselves.

Fortunately, we in Georgia have a time advantage, for in addition to the margin that exists in the national dependency ratio, Georgia is somewhat below the national average for the proportion of persons aged over 65. Yet we must act. Perhaps this is the time to initiate a linkage-awareness campaign which will recognize the "common stake" of the generations.

The investment in human potential cannot be segmented. Thus *Ties That Bind*, a Gerontological Society publication, captures the unitary relationship of the generations. The fiscal investment is, as has been demonstrated, massive. It is exceeded only, in these writers' opinion, by the moral investments.

David L. Levine is professor of social work and Charlon I. Seegar is adjunct assistant professor of social work, University of Georgia.

Recent Real Estate Developments

Lina Echeverri

Even though recent population growth in the Atlanta metro area generated a high demand for housing, the large inventories accumulated have offset this increased demand. Home builders responded by applying for fewer permits during the first months of 1987 than last year. As supply is reduced, the contribution of the construction sector to the Atlanta economy will lessen, but the overbuilding should diminish.

Overall, the number of new housing permits dipped in the first two quarters of 1987 in most of Georgia's metropolitan areas as well as in the state as a whole. Atlanta accounts for about 70 percent of the total number of permits issued statewide. The rest of the metropolitan areas account for 15.7 percent and the remaining 14.3 percent covers activity in the state's non-metropolitan areas. Because the number of housing permits is viewed as a measure of economic performance, growth is a healthy sign. The adverse effect during the first quarter of this year is due partly to seasonal trends, but it is also a result of previous overbuilding and the 1986 tax reform, which slowed down rentals.

Table 1 shows revised annual and quarterly figures for private units authorized in the MSAs and the total number of units for the state, excluding mobile homes. In 1986, annual housing permits in Albany, Atlanta, Chattanooga, and Macon increased by 40.3, 5.9, 27.4, and 27.9 percent, respectively, compared to 1985. Residential permits in Athens, Augusta, Columbus, and Savannah decreased 5.2, 12.7, 20.1, and 5.3 percent, respectively below 1985 levels. In 1986, the total number of housing permits for Georgia rose 2.5 percent over the previous year.

During the fourth quarter of 1986, most of the state's metropolitan areas showed dramatic increases in the number of permits issued except in Atlanta and Columbus, where permits dipped 16.2 and 68.8 percent, respectively. By early 1987, however, figures for Chattanooga and Columbus rose sharply, by 207.7 and 143.6 percent, respectively, above their levels in the first quarter of 1986. Chattanooga is a special case because only the three counties within the Georgia border are considered and they do not correspond to that MSA's central metro counties. Even though the numbers suggest a very large change from one year to the next, the base number of permits is very small and any large development would produce a drastic percentage change. In fact, the expansion from 39 units to 120 units that occurred in Chattanooga represents about 1.5 percent of the total number of permits issued in Georgia. Columbus had the largest number of housing permits after Atlanta, but accounted for only about 4.3 percent of the state's total number. In the second quarter of 1987, Athens and Chattanooga were the only MSAs with slight gains of 3.2 and 14.4 percent in residential permits issued.

Table 2 gives the value of housing units authorized. Revised annual figures for 1986 show that total values increased in most of the metropolitan areas, as well as in the state, compared to 1985. The exception was Columbus, where the value of permits dropped 5.1 percent in 1986 as a result of the decline in the number of units authorized.

Because housing permits are valid for up to a year in many localities and merely allow the legal construction of units, they do not show how many units are actually constructed or how rapidly the market absorbs them. Annual totals for single-family homes, condos, and co-ops are given in Table 3. Based on revised data from the National Association of Realtors, existing home sales rose to 75,100 units in 1986, a rise of 15.4 percent above 1985. The seasonally adjusted annual numbers of housing units sold in Georgia during each of the four quarters of 1986 were 4.4, 12.5, 34.2, and 19.1 percent, respectively, above their equivalents in the same quarters of 1985. In the first quarter of 1987, existing home sales increased 11.6 percent above their level the year before.

Another aspect of residential construction in Georgia is given by data on the number of mobile home units shipped to the state, as shown in Table 4. The latest data available show that in 1986, mobile home shipments statewide were 17 percent below their level in 1985. During the last two quarters of 1986, the number of units shipped decreased 22.9 and 18.3 percent, respectively, compared to that during the equivalent periods in 1985.

Atlanta is now the nation's largest single-housing market. During 1986, the metro area had the highest number of single-family building permits in the nation, as reported by the Home Builders Association of Metropolitan Atlanta, and ranked third, according to the Dallas-based Lomas & Nettleton Co., in total residential construction, behind Los Angeles and Riverside-San Bernardino, California.

Although these rankings make the area attractive, the slowdown in permits authorized for residential construction at the end of 1986 has continued.

Table 1

Private Housing Units Authorized

	Albany	Athens	Atlanta	Augusta	Chattanooga	Columbus	Macon	Savannah	State
1980	NA	NA	22,058	1,667	155	576	1,145	1,152	34,837
1981	445	713	18,596	1,185	149	382	840	1,245	29,996
1982	496	780	24,015	2,258	145	560	1,255	1,839	38,737
1983	637	1,937	44,460	3,578	210	1,499	2,662	2,381	65,910
1984	791	1,322	50,131	4,265	269	1,122	2,083	1,754	70,264
I	152	205	12,334	723	75	364	552	357	17,418
II	217	612	14,981	872	46	256	452	395	21,396
III	151	256	12,421	849	127	183	593	316	17,827
IV	85	139	9,207	753	108	236	491	271	13,724
1985	580	1,571	50,568	4,460	215	1,329	1,760	2,761	74,985
I	89	289	10,740	1,470	118	243	396	696	16,279
II	107	574	13,879	789	65	250	504	403	19,674
III	128	282	20,981	1,490	42	282	312	1,078	20,981
IV	93	393	13,396	657	30	554	376	374	17,387
1986	814	1,490	53,556	3,892	274	1,062	2,251	2,614	76,896
I	340	396	12,873	1,335	39	280	512	655	19,129
II	111	313	16,092	965	132	284	625	806	22,601
III	153	250	13,362	739	46	325	529	419	19,000
IV	210	531	11,229	853	57	173	585	734	16,166
1987									
I	69	232	11,263	525	120	682	401	413	15,713
II	82	323	10,919	554	151	246	489	698	16,055
% CHANGE ON AN ANNUAL BASIS									
1985-1986	40.3	-5.2	5.9	-12.7	27.4	-20.1	27.9	-5.3	2.5
I	282.0	37.0	19.9	-9.2	-66.9	15.2	29.3	-5.9	17.5
II	3.7	-45.5	15.9	22.3	103.1	13.6	24.0	100.0	14.9
III	19.5	-11.3	-36.3	-50.4	9.5	15.2	69.6	-61.1	-9.4
IV	125.8	35.1	-16.2	29.8	90.0	-68.8	55.6	96.3	-7.0
1986-1987									
I	-79.7	-41.4	-12.5	-60.7	207.7	143.6	-21.7	-36.9	-17.9
II	-26.1	3.2	-32.1	-42.6	14.4	-13.4	-21.8	-13.4	-29.0

Note: Quarterly totals may not add to annual figures because of revisions in monthly data.

Source: U.S. Department of Commerce, Bureau of the Census, Housing Units Authorized by Permit Issuing Places and unpublished reports.

Table 2

Value of Private Housing Units Authorized
(Thousands of Dollars)

	Albany	Athens	Atlanta	Augusta	Chattanooga	Columbus	Macon	Savannah	State
1980	NA	NA	$746,102	$52,073	$5,057	$19,573	$38,811	$46,572	$1,166,333
1981	$12,492	$20,071	648,789	39,378	4,233	14,845	30,364	51,765	1,018,380
1982	12,562	23,096	931,925	65,415	4,551	89,748	44,690	66,530	1,387,196
1983	18,279	56,613	1,625,171	120,311	6,048	50,961	86,300	73,252	2,367,445
1984	24,862	46,503	2,151,672	149,394	7,347	40,978	83,734	97,505	2,896,777
I	8,038	8,869	518,216	26,608	2,361	13,430	21,704	23,837	707,619
II	6,578	18,619	604,278	28,833	1,651	9,180	21,670	33,089	838,633
III	3,842	8,543	516,477	27,743	1,127	6,899	19,455	18,205	694,190
IV	2,982	6,716	415,467	24,901	2,358	8,502	20,214	18,208	587,720
1985	22,062	63,381	2,289,203	152,809	7,101	49,089	77,661	136,264	3,245,941
I	4,028	11,702	480,295	43,251	1,036	9,095	19,574	39,455	684,250
II	4,170	22,072	634,407	33,859	2,111	9,998	20,461	25,928	877,146
III	5,126	12,972	881,761	49,141	1,583	13,641	17,815	44,288	881,757
IV	4,305	14,858	595,306	26,508	1,193	16,353	15,862	24,396	744,493
1986	30,053	65,802	2,787,681	187,267	8,047	47,502	103,452	158,993	3,868,204
I	9,524	17,682	646,224	57,490	1,594	11,455	23,599	34,419	907,800
II	5,717	17,921	838,033	52,899	3,551	12,580	29,374	51,463	1,158,014
III	7,041	12,527	634,860	42,599	1,599	12,618	24,077	33,097	912,090
IV	7,771	17,672	668,564	34,279	1,303	10,849	26,402	40,014	890,300
1987									
I	2,825	17,041	638,744	31,476	4,837	21,359	22,383	32,427	849,029
II	3,882	19,805	708,227	32,306	3,931	14,576	23,697	45,222	1,002,251
% CHANGE ON AN ANNUAL BASIS									
1985-1986	33.6	1.9	19.5	20.2	11.2	-5.1	30.7	14.5	16.9
I	132.0	48.2	32.0	30.4	51.0	23.6	18.3	-14.4	30.2
II	34.5	-20.3	29.6	53.3	65.0	23.4	40.9	94.7	29.5
III	34.8	-5.3	-29.4	-14.9	-0.9	-9.2	32.6	-26.7	1.5
IV	77.1	16.7	10.2	26.9	7.2	-34.9	63.3	60.9	17.3
1986-1987									
I	-70.9	-5.8	-3.4	-46.5	196.6	82.2	-7.3	-7.9	-8.6
II	-33.3	6.0	-17.4	-40.3	8.2	13.2	-21.2	-14.1	-15.4

Note: Quarterly totals may not add to annual figures because of revisions in monthly data.

Source: U.S. Department of Commerce, Bureau of the Census, Housing Units Authorized by Permit Issuing Places and unpublished reports.

Table 3

Existing Home Sales in Georgia for Single Family, Apartment Condos, & Co-ops
(000s of units)

Year	Annual Totals	Quarterly Totals* I	II	III	IV
1981	54.6				
1982	35.8				
1983	51.0	47.8	48.3	51.1	57.1
1984	60.1	65.9	63.9	51.1	58.7
1985	65.1	68.8	63.0	58.4	70.3
1986	75.1	71.8	70.9	78.4	83.7

*Note: Quarterly figures are seasonally adjusted annual rates.

Source: National Association of Realtors, "Existing Home Sales," and Annual Home Sales Supplement (May 1987).

Table 4

Mobile Home Shipments to Georgia

Year	Annual Totals	Quarterly Totals I	II	III	IV
1981	11,172				
1982	12,655				
1983	16,268	3,297	4,401	4,226	3,794
1984	18,486	4,174	4,695	4,621	4,425
1985	20,199	4,995	5,640	5,180	4,384
1986	16,774	4,661	4,536	3,995	3,582

Note: Quarterly totals may not add to annual totals because of revisions in monthly data.

Source: National Conference of States on Building Codes and Standards.

Apartment permits, adversely affected by the 1986 tax reform, have suffered the most. The levels of permits for single-family residences have vary from county to county. Gwinnett County currently has the highest growth in the number of single-family permits issued in metro Atlanta, reaching 1,765 permits in the first quarter of 1987, up 30 percent from a year ago. The second busiest county in the metropolitan area was Cobb, which issued 1,292 permits in the quarter; however, this figure represents a drop of 16 percent from last year. DeKalb and Fulton, two other central counties, reported declines in single-family permits of 26 and 25 percent, respectively. No county in the metro Atlanta area reported an increase in apartment permits for the first quarter of 1987 over the levels of first quarter 1986.

The Atlanta markets for existing homes and for new housing are moving in different directions, but both performed strongly during the first three months of the year because of high demand and low mortgage rates. The after-effect caused by increases in mortgage rates in early April, of course, are not included. During 1986, the city's market for resold housing remained strong, but it is now facing competition from new home sales. The average price of a new home in Atlanta was $115,000 in January, increasing to $125,000 in February before dropping to $120,000 in March. The number of homes sold in metro Atlanta during March rose 35 percent above that in the same months of 1986, and the average price paid was 11 percent higher than a year earlier. The total number of residential sales during the first quarter of 1987 was 8 percent higher than a year ago.

Third in a
continuing series

Regional Economic Conditions

Hugh O. Nourse and John Drye

In this issue we describe economic conditions in the Northwest corner of the state. The Chattanooga region encompasses the Georgia part of the Chattanooga area -- Catoosa, Walker, and Dade counties -- and includes the towns of Fort Oglethorpe, Chickamauga and Trenton. The Northwest region is the surrounding area of Whitfield, Murray, Gordon, Bartow, Chattooga, Floyd, and Polk counties, and includes the cities of Dalton, Calhoun, Rome, Cartersville, and Cedartown.

Both regions have experienced less growth in the civilian labor force between 1980 and 1985 than almost any other region in the state. Although the labor force increased .9 percent per year in the Northwest, the labor force in Chattanooga actually experienced a .2 percent per year decline.

To understand why these two regions are slow growing areas, let us look at industrial plants, shopping areas, employment, and construction in these areas during the period 1980-1985.

THE CHATTANOOGA REGION

With a diverse industrial base, the Chattanooga region is home for 137 industrial plants. The majority of these are in the textile, apparel, fabricated metal, and non-electrical machinery industries (Table 1). Manufacturing employment is dominated by textiles, with a particular concentration in Walker County where 30 to 40 percent of the labor force is employed in the industry. Between 1980 and 1986, the textile industry experienced a 12.8 percent

Table 1

Chattanooga Region
Number of Manufacturing Plants by Employment, 1982

Industry	Number of Employees 1-19	20-99	100-249	Over 250	Plants Total
Food and kindred products	4		1		5
Textile mill products	9	9	11	9	38
Apparel and other textiles	5	6			11
Lumber and wood products	6				6
Furniture and fixtures	2	2			4
Paper and allied products	2	1	1		4
Printing and publishing	5	1			6
Chemicals and allied products	1		1		2
Petroleum and coal products	1				1
Rubber and misc. plastics products		2			2
Stone, clay, and glass products	3				3
Primary metal industries	1		1		2
Fabricated metal products	5	4			9
Non-electrical machinery	21	2			23
Electric and electronic equipment	1			1	2
Transportation equipment	1	1			2
Misc. manufacturing industries	2				2
Total Number of Plants	69	28	15	10	122

Source: U.S. Department of Commerce, *1982 Census of Manufactures*

decline in statewide employment. The fabricated metals and apparel industries (with 9 and 11 plants, respectively) experienced a .9 percent growth in statewide employment in the former and a 1.8 percent reduction in the latter industry. If the state's employment decline in the textile and apparel industries typifies that of this region, then one cannot expect much employment growth from them.

During 1980-1986, the electrical and non-electrical machinery industries experienced strong employment growth throughout Georgia. Over that period, employment increased 36.3 percent and 15.5 percent, respectively. There are 23 non-electrical machinery plants in the region. If the state's employment growth in these industries is representative of this region, then these plants represent one possible area for economic growth. While only two electrical machinery plants are located here, one of them, Roper Appliance in Walker County, employs over 1,000 workers. This is approximately 2 percent of the work force in the entire region. One can easily see the impact large industry has on regional employment.

Industrial growth in the Chattanooga region is not promising. The decline in employment associated with the textile industry has been detrimental to the entire state, but the effects of this decline are probably more severe in northern Georgia where the textile industry is concentrated. In 1980, the civilian labor force for this region was 49,005 (Table 2). By the end of 1985, this number had declined to 48,445 but rose slightly to 49,895 in 1986. During 1980-1985, the unemployment rate for this region was fairly steady (between 7.1 and 8.4 percent) except for 1982 when the unemployment rate soared to 17.4 percent. This increase was probably associated with the decline in textile employment. The loss of industrial jobs in this region is reflected in the decline in the labor force from 1980-1985.

The Chattanooga region is part of the Chattanooga retail trade area. Catoosa County has the highest level of retail sales here, probably because of its association with

Table 2

Civilian Labor Force
Chattanooga Region

Year	Employed	Unemployed	Total
1980	44,875	4,130	49,005
1981	45,595	3,989	49,584
1982	44,615	9,398	54 013
1983	44,091	4,220	48,311
1984	44,813	3,406	47,722
1985	44,316	3,632	48,445
1986	46,774	3,121	49,895

Source: Georgia Department of Labor, Labor Information System

Fort Oglethorpe which is the largest town in the county. There are no large malls located in the area.

Between 1980-1985, the level of residential construction in the region was fairly stable. The number of single unit residential construction permits ranged from a low of 109 in 1981 to a high of 138 in 1985. There was significant growth in total residential construction during 1983 and 1984 when permits grew by 45 percent and 28 percent, respectively. Overall, however, the relatively poor growth in residential construction in this region is probably associated with the loss of jobs in the textile industry.

Industrial construction was very erratic between 1980 and 1985 (Table 3). The dollar volume of industrial construction increased from its 1980 level of $250,000 to over $2 million in 1981 and over $3 million in 1982. After reaching its peak in 1982, industrial construction fell two consecutive years to its low for the period of $75,000 in 1984. Following that two-year decline, it rebounded in 1985 to over $1 million.

Table 3

Building Permits
Chattanooga Region

	Residential		Value of Construction		
Year	Single Units	Total Units	Industrial	Office	Retail
1980	125	155	$ 250,000	$ 161,000	$ 594,600
1981	109	149	2,119,500	138,000	193,500
1982	111	145	3,308,908	175,300	365,000
1983	114	210	1,599,000	2,338,503	1,092,500
1984	123	269	75,000	242,000	1,750,273
1985	138	214	1,134,900	631,000	1,861,800
Total	720	1,142	$8,487,308	$3,685,803	$5,857,673

Source: U.S. Department of Commerce, Bureau of the Census

The level of office, bank, and professional buildings construction expanded steadily between 1982 and 1985, rebounding from its low of $138,000 in 1981. During 1983, the level of office construction increased to over $2 million. By 1984, it had dropped to $242,000, although this was still above its previous low experienced in 1981. By 1985, however, it increased to $631,000.

Retail store construction experienced a compounded annual growth rate of 25.6 percent over the six years, although there was a decline in 1981. Our analysis indicates that the growth probably is in convenience type retailing associated with Chattanooga commuters living in the area.

THE NORTHWEST REGION

The Northwest region's industrial base is widely varied, but the four most prevalent employers are in textiles, lumber, non-electrical machinery, and electronic equipment (Table 4). The textile industry, which has 326 plants operating in the region, is by far the largest. Four of the region's counties, Whitfield, Murray, Chattooga, and Gordon, have approximately 50 percent of their labor force employed in textiles and apparel. Two textile plants, Shaw Industries in Whitfield County and Riegal Textiles in Chattooga County, each employ over 2,000 persons. The second largest employer in the region is the electronic equipment industry. Although only ten electronic equipment manufacturing plants are located here, two of these plants employ over 250 workers. The largest -- General Electric in Floyd County -- employs over 1,000 workers.

During 1981-1985, the civilian labor force unemployment rates for the Northwest region averaged 9.5 percent (Table 5), which was 2.7 percent above the statewide unemployment rate for the same period. Poor growth, evidenced by a labor force increase of only 1.1 percent as compared to 2.5 percent for the state as a whole, is probably associated with the concentration of the textile industry. Between 1980-1985, the textile industry as a whole in Georgia lost 15,000 jobs, but, the unemployment data shows 1982 as the only year in which the unemployment rate in this region increased significantly. The civilian labor force unemployment rate went from 8.9 percent in 1981 to 12.2 percent in 1982. During the two years following 1982 the region experienced a decrease in total unemployment, probably associated with an upswing in the electrical equipment industry which hired an additional 7,300 persons statewide.

The Northwest region is influenced by the Rome, Chattanooga, and Atlanta retail trade areas with Rome and Chattanooga accounting for most of the retail sales. In 1983, retail sales in the Rome trade area were $630,216,000. Sixty-three percent of these sales were accounted for in Floyd County.

Between 1980-1985, total residential construction in this region experienced an annual growth rate of 9.3 percent (Table 6). Single unit residential construction,

Table 4

Northwest Region
Number of Manufacturing Plants by Employment, 1982

Industry	Number of Employees 1-19	20-99	100-249	Over 250	Plants Total
Food and kindred products	13	7	6	2	28
Tobacco manufactures	0	0	0	0	0
Textile mill products	162	98	35	31	326
Apparel and other textile products	19	17	8	5	49
Lumber and wood products	63	11	0	0	74
Furniture and fixtures	9	10	1	2	22
Paper and allied products	7	6	2	1	16
Printing and publishing	24	13	0	1	38
Chemicals and allied products	6	8	3	0	17
Petroleum and coal products	0	0	0	0	0
Rubber and misc. plastics products	13	14	1	2	30
Leather and leather products	1	1	0	0	2
Stone, clay, and glass products	21	6	0	0	27
Primary metal industries	3	2	1	2	8
Fabricated metal products	11	2	3	0	16
Machinery, except electrical	43	15	1	2	61
Electric and electronic equipment	5	2	1	2	10
Transportation equipment	1	3	1	1	6
Instruments and related products	1	1	0	0	2
Misc. manufacturing industries	10	1	0	0	11
Total Number of Plants	412	217	63	51	743

Source: U.S. Department of Commerce, *1982 Census of Manufactures*.

Table 5

Civilian Labor Force
Northwest

Year	Employed	Unemployed	Total
1980	129,061	12,556	141,617
1981	129,547	12,651	142,198
1982	123,651	17,201	140,852
1983	126,554	13,580	140,134
1984	132,332	11,048	143,380
1985	134,980	13,201	148,181
1986	140,467	10,900	151,367

Source: Georgia Department of Labor, Labor Information System.

however, grew at a more modest 3.9 percent. Nonetheless, total residential construction during 1982-1985 grew at a strong 24 percent annual rate which followed on the heels of a 33 percent decline in construction during 1981.

Nonresidential construction in the Northwest region is primarily industrial. During 1980-1985, the value of regional industrial construction grew at an annual rate of 36.4 percent. The only year in which the level of industrial construction did not exceed that of office and retail store construction was in 1980 when industrial construction was $3.1 million and retail store construction was $4.4 million. The level of industrial construction has tapered off a little since it reached its high of $15 million in 1983, however.

Between 1980-1984, office, bank, and professional buildings construction was very stable. During this period, the level of office construction varied from $1 to $3 million. By 1985, though, office construction jumped to $7.7 million as the area contended with the undersupply of office, bank, and professional buildings caused by the low levels of construction in prior years.

Retail store construction has been erratic, peaking in 1983. Two successive years of decline followed, although retail store construction is probably stronger in some counties in the Northwest region than in others.

Table 6

Building Permits
Northwest

	Residential		Value of Construction		
Year	Single Units	Total Units	Industrial	Office	Retail
1980	728	936	$ 3,136,800	$2,711,965	$4,366,429
1981	531	631	7,519,000	3,219,273	1,742,962
1982	551	765	12,051,142	962,200	4,714,459
1983	659	923	15,433,880	2,974,266	7,669,023
1984	814	1,364	13,977,294	1,171,028	6,881,844
1985	883	1,460	14,789,354	7,732,330	5,153,923
Total	4,166	6,079	$66,907,470	$18,771,062	$30,528,640

Source: U.S. Department of Commerce, Bureau of the Census

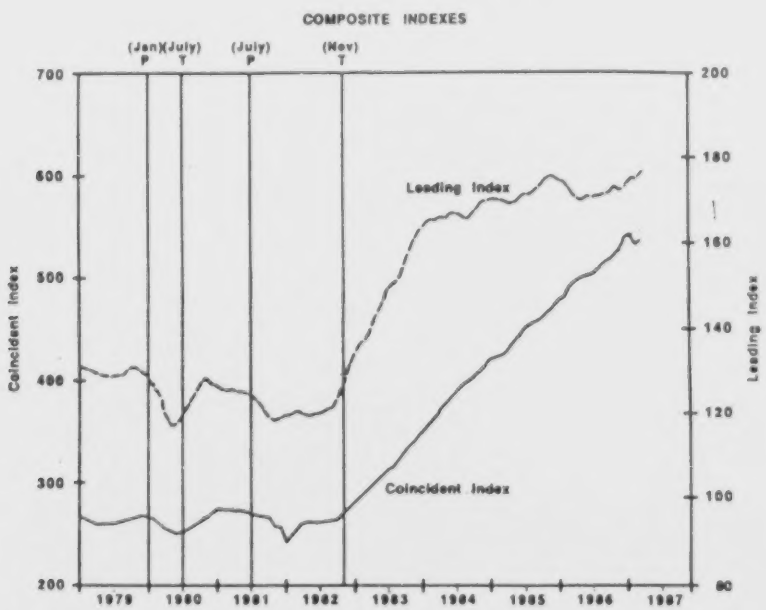
Composite Indexes of Leading and Coincident Georgia Economic Indicators

After several months of growth, both the leading and the coincident indicators dropped in April. In May, however, both indexes rebounded by the biggest increases so far this year. Monthly changes show that the leading indicator dropped .4 percent in April: initial unemployment claims declined .7 percent, a positive factor; the drop was offset by a decline of 5.6 percent in both new housing permits and the help wanted advertising index for Atlanta. In May, the indicator rebounded and grew 1.2 percent. Seasonally adjusted initial unemployment claims dropped 12.4 percent, accompanied by declines of 26.2 and 3.2 percent, respectively, in seasonally adjusted new housing permits and in the Atlanta help wanted advertising index.

Overall, the coincident indicator dropped 1.9 percent in April, its first decline since 1981. All its seasonally adjusted component series also dropped. Real retail sales declined 10.3 percent, real manufacturing weekly earnings dropped 2.9 percent and nonagricultural employment decreased .2 percent. In May, the index bounced back and rose 1.2 percent. Real retail sales and real manufacturing earnings increased 11 and 4 percent, respectively. Nonagricultural employment continued to drop by a slight .1 percent.

Year over year, both indexes showed figures above those in April and May of 1986. The leading indicator increased 2 percent in April although its component series were mixed. Seasonally adjusted initial unemployment claims, new housing permits and Atlanta help wanted advertising continued to decline by 16.4, 21.5, and 4.6 percent, respectively, compared to the same month last year. In May, the index rose 4.3 percent above its level in the same month of 1986. Initial unemployment claims continued with its healthy decline, dropping 29.7 percent below last year's level. The help wanted advertising index for Atlanta and new housing permits rose 3.2 and .2 percentage points, respectively, above their levels in May 1986.

In April and May, the coincident indicator grew 7.2 and 7.3 percentage points over its previous year's values. Its seasonally adjusted series also were mixed. Real retail sales and real manufacturing weekly earnings were 1.8 and 5.6 percent, respectively, below April 1986 levels. Nonagricultural employment increased 3.8 percent over its value in the same month of 1986. In May, real retail sales snapped back from its last year's level, increasing 2.2 percent. Real manufacturing weekly earnings were 1.4 percentage points off from 1986, while nonagricultural employment continued to be positive, increasing 3.4 percent above its level in May 1986.



GEORGIA BUSINESS STATISTICS

SERIES	MAY 1987	APR 1987	MAR 1987	MAY 1986
Georgia Leading Indicators Index[1] (1969=100)	177.09	175.04	175.70	169.72
Georgia Coincident Indicators Index[2] (1969=100)	537.88	531.50	541.55	501.15
Nonagricultural Employment[2] (thousands)	2752.6	2748.5	2735.6	2663.1
Manufacturing Employment[2] (thousands)	569.0	567.3	566.3	563.3
Average Weekly Earnings, Manufacturing[2] (dollars)	349.02	339.33	343.99	341.07
Help Wanted Advertising, Atlanta Index[3] (1967=100)	259	251	266	251
Taxable Retail Sales[4] ($ millions)	3677.1	3257.5	3225.7	3467.3
Building Permits[5]				
Residential Housing Units, Private (thousands)	5.3	6.1	6.0	7.2
Value of Residential Housing ($ thousands)	291785	340516	336879	360689
Value of Nonresidential Construction ($ thousands)	240338	199847[P]	198794[P]	190023[P]
Industrial Buildings	16931	29305	30018	57372
Office, Bank and Other Professional Buildings	58672	38966	28767	23833
Stores and Other Mercantile Buildings	52350	56961	50858	35888
Other	112385	74615	89151	72930
Consumer Price Index[6] (CPI-U, all items)				
South U.S. (December 1977 = 100)	181.4	180.9	180.2	–
South/Population more than 1,200,000[a]	182.0	181.5	180.4	–
South/Population 450,000 - 1,200,000[a]	183.2	183.0	182.3	–
South/Population 50,000 - 450,000[a]	179.8	179.2	178.8	–
South/Population Less than 50,000[a]	178.9	178.0	177.8	–
Atlanta (1967=100)[b]	–	–	–	334.9[b]
Prices Received by Farmers, Georgia Index[7] (1977=100)	126	126	124	121
	1987:I	1986:IV	1986:III	1986:I
Total Personal Income[8] ($ millions)	83631	82189	81259	79391

---

[1] Georgia Economic Forecasting Project, Division of Research, College of Business Administration, University of Georgia. Initial monthly values subject to revision.

[2] Labor Information Systems, Georgia Department of Labor.

[3] Series published by The Conference Board, Inc.

[4] Derived by the Division of Research, College of Business Administration, University of Georgia, from data of the Sales and Use Tax System, Georgia Department of Revenue.

[5] U.S. Department of Commerce, Bureau of the Census.

[6] U.S. Department of Labor, Bureau of Labor Statistics, Southeastern Regional Office.

[7] Georgia Department of Agriculture, Georgia Crop Reporting Service.

[8] U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System.

[P] Preliminary, imputation greater than 25 percent.

[a] Group size revised as of January 1, 1987.

[b] Atlanta index will be published semiannually (August, February) beginning in 1987. Value given for April, 1986.

Division of Research
College of Business Administration
University of Georgia
Athens, Georgia 30602

Second Class Postage Paid
Athens, Georgia

20814 CONO1 3333
CONGRESSIONAL INFO SERVICE
SRI ACQUISITIONS
4520 EAST-WEST HWY
SUITE 800
BETHESDA, MD 20814